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CALENDAR

OF

Queen's University and College,

KINGSTON, CANADA.

SESSION 1871-72.



INCORPORATED BY ROYAL CHARTER.

A.D. 1841.

KINGSTON:

PRINTED FOR THE UNIVERSITY AT THE DAILY NEWS OFFICE.

1871.

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ENDOWMENTS AND BEQUESTS.

St. Andrew's Church Ladies' Association, Toronto—Scholarship	\$ 800 00
Ladies of Kingston—Scholarship...	1,113 00
His Royal Highness THE PRINCE OF WALES—Prize ...	800 00
The late JOHN MOWAT, Esq., Kingston—Scholarship ...	800 00
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Mrs. GLASS, Sarnia, for HENRY GLASS Memorial Scholarship	500 00
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Friends of the late Principal LEITCH in Scotland and Canada — Scholarships ...	2,433 33
Subscriptions from 15th Jan. 1869 to 1st May 1871—to revenue	
\$4,450.77, to endowment \$75,643.30, ...	80,094 67

ANNUAL CONTRIBUTIONS.

HUGH ALLAN, Esq., Montreal—Scholarship ...	50 00
Hon. ALEXANDER CAMPBELL, Senator, Kingston—Scholarship	80 00
JOHN WATKINS, Esq., Kingston, “	80 00
Students' Association, St. Andrews, Scotland, “	36 47
Students' Association, Aberdeen, Scotland, “	40 56
A Friend, Kingston—Cataraqui Scholarship ...	50 00
St. Paul's Church, Montreal—Two Scholarships ...	120 00
EDWARD H. HARDY, Esq., Kingston—Scholarship ...	50 00
Montreal Prizes ...	50 00
REV. J. MACLEOD, GLENCOE, Ont.—Class Prize in Divinity ...	5 00
General Assembly, Church of Scotland ...	1,703 33

DONATIONS, 1869-70.

- To the Library*—Mrs. Machar, Kingston, 132 vols.; Rev. S. Macmorine, B.A., Pittsburg, 12 vols.; John Rae, Georgina, 4 vols.; Wm. Weir, Montreal, 3 vols.; R. H. Miller, do, Geneva Bible, 1560; John Lovell, do., Dominion Directory; Smithsonian Institute, U. S., 3 vols.; Dominion Government, 12 vols.; Single volumes, 8; Pamphlets, 6.
- To the Museum*—Specimens and miscellaneous articles from Allan Macpherson, Esq., Principal Snodgrass, Prof. Dupuis, Dr. H. Yates, and Joseph Bawden, Kingston; Rev. Donald Ross, Dundee, Que.; Robt. Wilson, Esq., Grenville; Dr. Fraser, New Glasgow, N.S.; Joseph Watson, Esq., Portland, Ont.; Messrs. Horn and Pike, Wolfe Island; H. B. Robertson, Esq., Chatham, Ont.; Geo. Notman, Esq., Dundas; Messrs. Beckton and J. McLean, Glencoe; Miss Carmichael, Litchfield; John Tulley, Esq., Elgin; Miss Logie, Scotland.

ENDOWMENT FUND.

The endowment of the College, by means of a general subscription, was begun in January, 1869. The amount realized for capital is now \$75,515.80, clear of all expenses and payments to revenue, but including \$7,807.90 amount of deficiency in College revenue since the commencement of the scheme. To be adequate for all purposes the fund should approach \$150,000 as nearly as possible. Privileges are connected with paid subscriptions, according to the following regulations:—

1. Each and every subscription of \$500 shall be the foundation of a SCHOLARSHIP bearing in perpetuity the subscriber's name or any other name by which the subscriber may desire it to be known; the annual value of the Scholarship shall be the privilege allowed to one student of attending College without payment of class fees (at present \$20 per session), together with any other advantages, such as an annual income for support or encouragement, which may at any time be connected with it; the Scholarship shall be awarded annually according to directions received from the subscriber in writing; and after the subscriber's death it shall be tenable by his lineal representatives in order of seniority.

2. Subscribers of \$100, \$200, \$300, and \$400, shall have the right of NOMINATION, which may be exercised at any time during life, for one, two, three, or four students respectively, to a full course of instruction in Arts free of class fees.

The time during which subscribers not entitled to privileges shall be allowed to acquire privileges in connection with Scholarships or Nominations, by making their subscriptions conform to the foregoing regulations, is extended to 1st April, 1872.

Certificates have been issued according to the following list made up to 5th May, 1871, the number being indicated when it exceeds one.

I. NOMINATIONS.

(Value, 175x100=\$17,500)

KINGSTON—S. Muckleston, J. Carruthers, 2; A. Gunn, J. Watkins, 8; Prof. Dupuis, M.A., J. Davis, Mrs. T. Hendry, J. M. Machar, M.A., Hon. J. Patton, W. R. McRae, W. Ireland, 2; G. M. Kinghorn, 3; J. Macpherson, F. Fowler, M.D., W. Irving, F. J. George, D. D. Calvin, A. Macpherson, O. S. Strange, M.D., J. Fisher, J. Breiden, R. J. Cartwright, G. Davidson, A. Livingston, J. Creighton, J. O'N. Ireland.

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II. SCHOLARSHIPS.

(Foundation value, 45 x 500—\$22,500.)

Andrew Allan 2 ...Montreal.	Kinloch (William)..... Montreal.
Bronson (H.F.)Ottawa.	Macpherson (Hon. D.L.) Toronto.
Buntin (Alex.) 2 ...Montreal.	Malloch (Mrs. Edw.)..... Ottawa.
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Doran (Michael)Kingston.	Rankin (John) 2..... Montreal.
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Greenshields (D. J.) Montreal.	Stephen (George)..... Montreal.
Hardy (Edw. H.) ...Kingston.	Thos. McKay *(Heirs) Ottawa.
Hugh Allan 3Montreal.	Urquhart (Alex.)..... Montreal.
Johnston (Jas.) “	Wm. Dow *(Mrs&Miss) 2 “


* Memorial Scholarships.


GENERAL ANNOUNCEMENTS.

QUEEN'S COLLEGE has, under its Royal Charter, "the style and privileges of a University."

The thirtieth Session will be opened on the first Wednesday (4th) of October, 1871, at 3 o'clock P.M., when an address will be delivered by Professor Murray.

Kingston is easily accessible on account of its central situation, and is one of the healthiest localities in Western Canada.

 *Students are particularly requested to give attention to the contents of the following pages, as all intimations shall be strictly adhered to.*

 A complete compilation of Statutes and By-laws, containing information as to Scholastic requirements and defining the duties of Students, is published separately. Copies may be obtained on application to the Registrar.

BOARDING.—No Student is allowed to board or lodge in any house not approved of by the Senate, except by permission of parents or guardians given in writing. Information as to approved houses may be obtained from the Registrar. The expense of suitable boarding is moderate.

REGISTRATION.—All Students are required to have their names and other particulars entered in the University Register.

At the time of Registration they must produce a certificate of character from their ministers or other competent persons and the College Treasurer's receipt for fees, and must sign a declaration promising due respect and obedience to the University authorities, a careful and diligent attention to their studies, and a courteous and peaceable behaviour towards their fellow-students.

ENTRANCE EXAMINATIONS.—The subjects of these will be found under the head of “Examinations” in connection with each Faculty. Students not intending to graduate are not required to appear at the Matriculation Examinations, but are recommended to do so, in order to satisfy themselves as to their fitness to enter classes with advantage.

MORNING PRAYERS.—All Students must attend morning prayers, except when absence is allowed by the Principal or the Senate. The attendance is marked in the University certificates. They must also attend the churches to which they profess to belong, and produce certificates of attendance from their clergymen when required.

THE LIBRARY contains over 8,500 volumes. All registered Students are entitled to the use of it, subject to By-laws.

THE OBSERVATORY.—In 1855 subscribers, aided by the City Corporation, founded an Astronomical Observatory, which was transferred by deed to the University in 1861. Barometer and Thermometer indications are observed twice a day, and the results supplied weekly to the Press. Local time is regularly given to the city clock-keeper. A course of free lectures on Astronomy is delivered annually.

THE MUSEUM.—The Mineralogical and Palæontological collections are extensive and valuable. Occasional demonstrations are given to Students. Friendly services towards the furnishing and enlargement of the Museum are solicited.

FEES.—The following fees are payable strictly in advance—Class fees on University day (16th October); Graduation fees on or before 23rd April.

Class fees—Full course in Arts, per session	...	...	...	\$20 00
“ One year’s classes not part of full course...	...	...	...	25 00
“ A single class in any Department...	...	...	...	5 00
Registration, per session	...	...	...	4 00
Apparatus	...	...	...	2 00
Matriculation Examination	...	...	...	1 00
Pass Examination...	...	...	...	2 00
Graduation Fee, Bachelor of Arts (B.A.)	...	...	...	10 00
“ Master of Arts (M.A.)	...	...	...	20 00
Bachelor of Divinity (B.D.)	...	...	...	20 00
Admission <i>ad eundem gradum</i> , B.A.	...	...	...	10 00
Do. do. M.A.	...	...	...	20 00

ACADEMIC YEAR 1871-72.

1871.	
Oct.	4 Session begins.
	5 Matriculation Examinations in Arts begin.
	9 Examinations for Mowat and Cataraqui Scholarships.
	16 University Day—Registration, &c.
Nov.	3 Matriculation Examinations in Theology begin.
	17 Written Examinations.
Dec.	9 Matriculation Examinations in Medicine.
	21 Written Examinations.
	22 Christmas Holidays begin.
1872.	
Jan.	9 Classes re-open.
	12 Statutory Meeting of Senate.
Feb.	2 Written Examinations.
	15 Time for receiving Theses for M.D. expires.
March	1 Written Examinations.
	8 Time for receiving subjects of Theses for M.A. expires.
	11 Primary and Final Examinations in Medicine begin.
	29 Written Examinations.
April	1 Notices of intention to appear at ensuing Examinations required.
	2 Class-work in Arts closes.
	5 Time for receiving Theses for M.A. expires.
	8 University Examinations in Arts begin.
	10 Class-work in Theology closes.
	16 University Examinations in Theology begin.
	18 Class Tickets given in to Professors for certification.
	23 Statutory Meeting of Senate.
	25 Convocation for distributing Prizes, announcing Honours, laureating Graduates, and electing Fellows.

FACULTY OF ARTS.

Intrants may complete the following Course for Graduation in three Sessions, by passing satisfactorily the second Matriculation Examination. Students not intending to graduate may take any of the Classes without regard to the prescribed order. In all the Classes there are frequent oral examinations besides a monthly examination conducted in writing.

Matriculation Examinations begin on 5th October.

I. ATTENDANCE.

<i>Hours.</i>	<i>Monday.</i>	<i>Tuesday.</i>	<i>Wednesday.</i>	<i>Thursday.</i>	<i>Friday.</i>
FIRST YEAR.					
9	Greek.	Greek.	Greek.	Greek.	Greek.
10	Mathematics.	Mathematics.	Mathematics.	Mathematics.	Mathematics.
11	Latin.	Latin.	Latin.	Latin.	Latin.
12	Eng. Language.		Eng. Language.		Eng. Language.
SECOND YEAR.					
9	Mathematics.	Mathematics.	Mathematics.	Logic.	Logic.
10	Classics.	Classics.	Classics.	Classics.	Classics.
11	French.	Eng. Literature.	French.	Eng. Literature.	French.
12	Chemistry.	Chemistry.	Chemistry.	Chemistry.	Chemistry.
THIRD YEAR.					
9	Botany.	and	Zoology.	French.	French.
10	Metaphysics.	Metaphysics.	Metaphysics.	Metaphysics.	Metaphysics.
11	Nat. Philosophy.	Nat. Philosophy.	Nat. Philosophy.	Nat. Philosophy.	Rhetoric.*
12		Classics.		Classics.	Classics.
FOURTH YEAR.					
9	German.†	German.†	German.†	Geology.	Geology.
10	History.	History.	History.	History.	History.
11	Ethics.	Ethics.	Ethics.	Ethics.	Nat. Philosophy.
12	Nat. Philosophy.	Classics.	Nat. Philosophy.	Classics.	Classics.

* Attendance is compulsory, but the Subject is not prescribed for University Examinations.

† Attendance is optional. A Class will be formed if a sufficient number of Students offer.

II. DEPARTMENTS AND SUBJECTS OF STUDY.

1.—CLASSICS.

First Year.

LATIN.	GREEK.	COLLATERAL SUBJECTS.
Cicero in Catilinam, I.	Homer, Iliad, Book I.	Latin Composition
Virgil, Æneid, Book XII.	Lucian, Charon.	Latin Prosody.
Horace, Odes, Book 1.	Gospel by John.	Roman Antiquities.
Cicero pro Archia.	Xenophon, Anabasis, Bk. V. }	Additional for Honours.
Horace, Epodes.	Homer, Odyssey, Bk. XII. }	

Second Year.

Cicero de Oratore, Bk. II.	Demosthenes, Philip. I.	Latin Composition.
Virgil, Georgics, Bk. IV.	Euripides, Alcestis.	Greek Composition, Prosody,
Livy, Bk. XXII.	Acts of the Apostles.	and Antiquities.
Tacitus, Annals, Bk. I.	Herodotus, Bk. VI. }	Additional for Honours.
Horace, Ars Poetica,	Homer, Odyssey, Bk. XXI. }	

Third Year.

Tacitus, Agricola.	Sophocles, Antigone.	Latin Composition.
Cicero pro Ligario.	Demosthenes, Philip. II.	Greek Composition, Prosody,
	Epistle to the Ephesians.	and Antiquities.
Livy, Book XXI.	Plato, Apology. }	Additional for Honours.
Juvenal, Satire X.	Pindar, Olympic Odes. }	

Fourth Year.

Terence, Andrian.	Thucydides, Bk. I.	Latin Composition.
	Æschylus, Prometheus	Greek Composition, Prosody,
		and Antiquities.
Lucretius, Bk. V.	Demosthenes, de Corona. }	Additional for Honours.
	Hesiod, Works and Days. }	

2.—MATHEMATICS AND NATURAL PHILOSOPHY.

First Year—MATHEMATICS.

Euclid I.-VI. (Simson). Algebra (Wood, pp. 1-174, omitting pp. 136-161.)
Collateral Subjects. Logarithms. Exercises.

Additional for Honours—Subjects in Wood, pp. 136-161,—and Trigonometry, Definitions, Propositions 1-6 (Playfair's Euclid by Kelland, ed. 1859, pp. 167-169, 180-183.)

Summer work for second Matriculation Examination—Euclid XI., 1-21, 33, XII. 1, 2, with 1st Lemma, (Simson). Algebra—Arithmetical, Geometrical and Harmonical Progressions, Permutations and Combinations. (Wood, ed. 1861, pp. 161-180.)

Second Year—MATHEMATICS.

Trigonometry—Definitions, Propositions, 1-6 (Playfair's Euclid by Kel-land). Conic Sections, (Whewell.) Plane and Spherical Trigonometry (Snowball). Analytical Geometry (Hann's in Weale's Series.)

Collateral subjects:—Exercises. Plane and Geodetical Surveying, with the use of Surveying and Astronomical instruments.

Additional for Honours—all the Mathematics of the previous Course.

Summer work for third Matriculation Examination—Mensuration (Weale's Series pp. 19-66). Hydrostatics (Galbraith and Haughton, chaps. I-II.)

A Prize will be awarded for the best solutions of the problems in Snowball (ed. 1863), p. 149, § XIX. 1-12, inclusive and p. 158, § XXIV. 1-9, inclusive, given in by the 15th October.

Third Year—NATURAL PHILOSOPHY.

Mechanics (Galbraith and Haughton's.) Hydrostatics (do). Draper's Natural Philosophy. Analytical Geometry and Differential Calculus one day in the week (Ritchie, Hall). Collateral subjects:—Problems in Mechanics and Hydrostatics.

Additional for Honours—Earnshaw's Statics, chap. III.

Summer work for fourth Matriculation Examination—Optics (Dupuis,) pp. 9-30.

Fourth Year—NATURAL PHILOSOPHY.

Lectures. Astronomy (Galbraith and Haughton's). Integral Calculus one day in the week. Collateral subjects—Problems in Natural Philosophy. Essays.

For Pass Examination—Elements of the Natural Philosophy of the Undergraduate Course.

Additional for Honours—Elements of the Differential and Integral Calculus; Evan's Newton's Principia, ed. 1855, secs. II. and III. pp. 26-52., or the same propositions in Frost's Edition 1863.

3—LOGIC,³METAPHYSICS, AND ETHICS.*Second Year—LOGIC.*

Text-book—Whately's Logic. Lectures.

Additional for Honours—Mill's Logic, Book III.

Subject of Summer Essay—*Induction*.

Third Year—METAPHYSICS.

Text-book—Outline of Hamilton's Philosophy, by Prof. Murray. The Lectures treat of

The Science of Knowledge. I. Knowledge in general. II. Knowledge in its special forms. § 1. Intuitive. (1) Presentative. (a) Self-Consciousness. (b) Perception. (2) Representative. (a) Its kinds. a. Simple Imagination. β. Memory; (b) Its Laws. § 2. Comparative. (1) Judgment. (2) Reasoning. (3) Generalization. (4) Poetic Imagination. (a) Beauty. (b) Art.

Additional for Honours—Schwegler's History of Philosophy, §§ 1-22 inclusive.

Subject of Summer Essay—*Visual Perception*.

Fourth Year—ETHICS.

Text-book—Stewart's Outlines of Moral Philosophy, by McCosh. The Lectures embrace

A. *Ethics, or the Science of Formation of Character*. I. The Feelings. II. The Appetencies. III. Ethical action. IV. Ethical Consciousness. V. Duties. VI. Virtues.

B. *Ontology, or the Science of Existence*. I. Existence in general. II. Existence in its special forms. § 1. The Ego or mind. § 2. The Nonego or matter. § 3. The Universe. § 4. God.

Additional for Honours—Schwegler's History of Philosophy, §§ 23-38 inclusive. Mackintosh's Dissertation on the Progress of Ethical Science.

Subject of Summer Essay—*Epicureanism, historically and critically considered*.

N.B. All summer Essays in the Department must be given in on or before 15th Nov.

4—CHEMISTRY AND NATURAL HISTORY.

Second Year—CHEMISTRY.

The Lectures treat of the principles of Inorganic and Organic Chemistry, and are illustrated by diagrams and experiments.

Additional for Honours—Physical Chemistry in Draper's Chemistry.

Third Year—BOTANY AND ZOOLOGY.

The Lectures on Botany embrace the principles of the Science, both structural and physiological, with an outline of the nature and systems of classification; those on Zoology treat of the functions and classification of animals. The subjects are illustrated by specimens and diagrams.

Additional for Honours—a special paper in Botany, and Milne-Edwards's Manual of Zoology, Part I.

Fourth Year—MINERALOGY AND GEOLOGY,

Lectures on these subjects are illustrated by specimens of minerals, rocks, and fossils, and by diagrams.

Additional for Honours—Ansted's Applications of Geology, and Chapman's Geology of Canada.

5—HISTORY, ENGLISH LITERATURE, AND MODERN LANGUAGES.

First Year—ENGLISH LANGUAGE.

Text-book—Shute's Manual of Anglo-Saxon. The Lectures treat of the Language in respect to its composition, vocabulary, and changes.

Second Year—ENGLISH LITERATURE.

Text-book—Smith's edition of Shaw's Manual of English Literature. Lectures on the Dramatic Literature of the Elizabethan period. Additional for Honours—The Literature of the 17th and 18th centuries.

A prize is offered to the Students who have been members of the class during the past Session, for the best essay on the *Life and Writings of Shakespeare*. The essays must be given in on or before 1st November.

Fourth Year—HISTORY.

I. ANCIENT HISTORY. Text-book—Schmitz's Manual of Ancient History. Lectures on (1) the Migrations of the Human Family; (2) the Origin of the Greeks and Romans respectively and their influence on Civilization.

II. MODERN HISTORY. Text-book—White's Eighteen Christian Centuries. Lectures on the History of the English Constitution.

Second and Third Years—FRENCH.

JUNIOR.—Text Books—De Fiva's Grammar and Voltaire's Charles XII.

SENIOR.—Text-books—Voltaire's Zaire, Corneille's Cinna.

There is but one Pass Examination on this subject.

SUBJECTS OF LECTURE.

1. RHETORIC.—The Principles and Practice of (1) Rhetorical Composition and (2) Elocution.

2. GERMAN.—Arrangements shall be made for the teaching of this Language only if a sufficient number of Students offer for the formation of a class.

3. HUMAN PHYSIOLOGY.—Lectures are given on Saturday morning and are free to all Students.

CLASS PRIZES.

The Trustees make an annual grant for prizes to the most distinguished Students. Awards may be made by the Professors for eminence in any kind of Class-work, but they are usually determined by the Written Examinations and Exercises.

CLASSES FOR LADIES.

ENGLISH LANGUAGE—Professor Ferguson.

RHETORIC AND LOGIC—Professor Murray.

NATURAL HISTORY—Professor Dupuis.

Information as to hours of meeting, fees, &c., may be obtained from Prof. Dupuis.

III. UNIVERSITY EXAMINATIONS.

These must be passed in order by all Candidates for the Degree of Bachelor. They are in writing chiefly, and correspond to the several years of the Course, as follows:—

First Matriculation admitting to the rank of Undergraduates.

CLASSICS.—Livy, Bk. II., chaps. 1–15 inclusive; Virgil, *Æneid*, Bk. II.; Translation of English into Latin Prose; Greek Grammar; Xenophon's *Anabasis*, Bk. I., chaps. 1–4, or 7–10 inclusive.

Candidates may profess equivalent portions of other Classical works, but in so doing cannot compete for rank or Scholarships.

ARITHMETIC.—As far as Extraction of Roots, inclusive.

ALGEBRA.—To end of Simple Equations: GEOMETRY—Euclid, Bks. I.–II.

ENGLISH—Bullion's Analytical and Practical Grammar.

First Pass on the work of the first Session, with the historical portions of the *Pentateuch* and *Joshua*.

Second Matriculation on subjects of the first year, with additions prescribed in the different Departments.

Second Pass on the work of the second Session, with the historical portions of the *Gospels* and *Acts of the Apostles*.

Third Matriculation on subjects of second year, with additions prescribed in the different Departments.

Third Pass on the work of the third Session, with historical portions of *Judges*, *Ruth*, *Samuel*, and *Kings*.

Fourth Matriculation on subjects of third year, (except French) with additions prescribed in the different Departments.

Final Examination (for B.A.) on the books and subjects prescribed for the fourth year's classes, with historical portions of *Chronicles*, *Ezra*, *Nehemiah*, *Esther*, *Job*, *Daniel*, and *Jonah*.

HONOURS may be taken in any Department, but only when candidates pass in all Departments.

MARKS FOR UNIVERSITY EXAMINATIONS.

FIRST YEAR.	SECOND YEAR.	THIRD YEAR.	FOURTH YEAR.
Classics.....2000	Classics.....1000	Classics.....1000	Classics.....1000
Mathematics.....1000	Mathematics.....1000	Nat. Philosophy. 2000	Nat. Philosophy..1000
English Language 1000	Logic.....1000	Metaphysics.....2000	Ethics.....1000
	Chemistry.....1000	Natural Science..1000	Natural Science..1000
	English Literature 1000	French.....1000	History.....1000
Bible History*.. 200	Bible History..... 200	Bible History..... 200	Bible History 200

*Marks obtained for this subject are not essential to passing but they are reckoned in determining the rank of Candidates in the Examination as a whole.

DEGREE OF MASTER (M.A.)

This Degree cannot be taken until after two years from the date of graduation as Bachelor. The candidate must compose a satisfactory Thesis on some subject taught in the Faculty or closely bearing upon one of the Departments. Intimation of the subject must be given to the Secretary of the Senate on or before 8th March, and the Thesis must be in his hands on or before 5th April, together with a certificate of moral character and of age which must be at least twenty-one years.

Graduates of other Colleges are admitted *ad eundem gradum* (B.A., or M.A.,) on producing satisfactory proof of rank and character.

The Degree of Doctor of Laws (LL.D.) is honorary, and is awarded for literary, scientific, or professional distinction.

FACULTY OF THEOLOGY.

Matriculation Examinations begin on Friday, 3rd Nov.

The prescribed order of classes must be observed by all Students intending to graduate or having in view the Ministry of the Presbyterian Church of Canada in connection with the Church of Scotland.

1—DIVINITY.

Hours—9-10 A.M. and 2-3 P.M.

Lectures on Systematic Theology, the Pastoral Office and Homiletics, with prelections and examinations on Hill's Lectures on Divinity, Butler's Analogy, Paley's Evidences, and Greek Testament for Doctrinal Exegesis. Students have opportunities of conducting devotional exercises, practising pulpit elocution, and performing missionary work.

2—HEBREW, CHALDEE, SYRIAC, AND ARABIC.

FIRST YEAR.

10-11 A.M.

Wolfe's Hebrew Grammar.
Genesis I.-III.
Exodus IV.
Nahum.
Translations into Hebrew.

SECOND YEAR.

4-5 P.M.

Gesenius' Hebrew Grammar.
Prov. XX.-XXI.
Job XXXVIII.-XLI.
Eccles. I.-III.
Isaiah LII.-LIV.
Translations into Hebrew.

THIRD YEAR.

11-12 A.M.

Gesenius' Hebrew Grammar.
Ps. I.-XXX.; Jer. VIII.-X.
Translations into Hebrew.
Rigg's Chaldee Manual.
Ezra IV.; Daniel II.-III.
Uhlemann's Syriac Grammar.
Syriac New Testament.
Stewart's Arabic Grammar.
Arabic Old Testament.

3—BIBLICAL CRITICISM.

FIRST AND SECOND YEARS.

Tues., Wed., and Fri., 3-4 P.M.

Epistles to Galatians and Ephesians in Greek.
Ellicott on Galatians and Ephesians.
Angus' Bible Handbook.
Lectures.

THIRD YEAR.

Tues., Wed., and Fri., 12-1.

Acts of Apostles in Greek.
Trollope on Acts.
Angus' Bible Handbook.
Lectures.

4—CHURCH HISTORY.

FIRST AND SECOND YEARS.

Mon. and Thurs., 3-4 P.M.

Killen's Ancient Church.
Lectures.

THIRD YEAR.

Mon. and Thurs., 12-1.

Wharey's Church History.
History of the Church of Scotland.
Lectures.

The Church requires the following discourses to be delivered during the Course:—Homily and Exegesis; Lecture and Greek Exercise; Sermon and Hebrew Exercise. Two are required each Session in order.

SUBJECTS OF MATRICULATION EXAMINATION.

First Year.—Westminster Confession; Hill's Lectures, Bk. I., Chaps. 2, 3, 4; Gospel by Mark in Greek and English.

Second and Third Years.—DIVINITY—Portions of Text-books used last Session. BIBLICAL CRITICISM—Portions of Text-books used last Session. GREEK TESTAMENT—Romans VIII.—XVI., Hodge on do.; HEBREW—*Juniors*—Grammar, Isaiah LV.—LVII—*Seniors*—Grammar, Ezek. XXXV.—XXXVIII.

PASS EXAMINATIONS on the work of each Session.

MARKS:—Divinity, 240 (Hill, &c. 100, Butler 80, Paley 60); Hebrew and Chaldee, 150; Biblical Criticism, 100; Church History, 50.

DEGREE OF BACHELOR OF DIVINITY (B.D.)

To obtain this Degree three-fourths of the marks allotted to each of the following subjects must be gained at the Final Examinations:—

1. Prelections of the Third Session.
2. Greek—Acts of the Apostles.
3. Wharey's Church History and History of the Church of Scotland.
4. Angus' Bible Handbook, Ch. IV., Rules of Interpretation.
5. Hebrew—Psalms I—XXV.; Chaldee—Daniel II.—III.
6. Paley's Evidences.
7. Butler's Analogy.
8. Hill's Lectures (Evidences excepted).

Alumni of former years or of other Colleges may compete for the Degree. In their case the subjects of Examination are 2, 3, 4, 6, 7, 8, of the above list; Hebrew, Exodus I—XXI., and Psalms I.—XLI.; Chaldee, Daniel II., III. All Candidates must be Bachelors of Arts.

The Degree of Doctor of Divinity (D.D.) is honorary, and is given for literary, scientific, or professional distinction.

SCHOLARSHIPS.

No 1 is adjudged upon an Oral Examination in Arithmetic, and No. 14 upon a written examination on White's *Eighteen Christian Centuries*, 14-18 inclusive: all the others are awarded upon the Matriculation Examinations of the years with which they are respectively connected. (See By-laws.)

N.B.—The years of the course in which Scholarships are tenable are indicated by the figures in the last column but one.

FACULTY OF ARTS.

No	NAME.	BY WHOM AND WHEN FOUNDED.	VALUE*		
1	MOWAT.....	Late John Mowat, Esq., Kingston...1861.	\$50 00	1	+O.
2	CAMPBELL †.....	Hon. Alex. Campbell, Kingston....1862.	80 00	1	O.
3	WATKINS.....	John Watkins, Esq., Kingston.....1862.	80 00	1	O.
4	LEITCH MEMORIAL (1)...	Subscribers, .....1866.	57 00	1	O.
5	ST. PAUL'S CHURCH (1)...	Congregation of St. Paul's, Montreal,1865.	60 00	1	†S.
6	ALLAN.....	Hugh Allan, Esq., Montreal.....1857.	50 00	1	S.
7	HARDY MEMORIAL.....	Mrs. Edw. H. Hardy, Kingston.....1871.	50 00	2	O.
8	SYNOD (1).....	The Church, .....1865.	80 00	2	S.
9	ST. ANDREW'S.....	Students, St. Andrews, Scotland....1862.	50 00	2	S.
10	HENRY GLASS MEMORIAL	Mrs. Glass, Sarnia, .....1869.	35 00	2	S.
11	KINGSTON.....	Ladies of Kingston, .....1861.	35 00	3	O.
12	SYNOD (2).....	The Church, .....1866.	80 00	3	S.
13	ABERDEEN.....	Students, Aberdeen, Scotland.....1856.	50 00	3	S.
14	CATARAQUI.....	A Friend, Kingston, .....1867.	50 00	3	O.
15	SYNOD (3).....	The Church, .....1867.	80 00	4	S.
16	SYNOD (4).....	The Church, .....1867.	60 00	4	S.

FACULTY OF THEOLOGY.

1	LEITCH MEMORIAL (2) §..	Subscribers, .....1867.	\$86 00		
2	ST. PAUL'S CHURCH (2)...	Congregation of St. Paul's, Montreal,1865.	60 00	1	
3	COLONIAL COMMITTEE (1)	Church of Scotland.....1855.	50 00	1	
4	COLONIAL COMMITTEE (2)	.....1860.	50 00	2	
5	COLONIAL COMMITTEE (3)	.....1855.	60 00	2	
6	DOMINION ¶.....	A Gentleman in New Brunswick,....1870.	50 00	2	
7	COLONIAL COMMITTEE (4)	Church of Scotland.....1855.	80 00	3	
8	COLONIAL COMMITTEE (5)	.....1860.	60 00	3	

* Scholarships in Arts have *Endowment Nominations* connected with them, securing exemption from class fees for *one* Session, and thereby virtually adding \$20 to the given value of each. The Watkins Scholarship carries a nomination to a full free course of *four* Sessions.

† O. Scholarships open for competition to *all* Students of the year. S. Scholarships open only to Students for the Ministry in connection with the Church of Scotland.

‡ Competition for this Scholarship takes place in Newburgh (1871), Bath (1872), and Kingston (1873), Grammar Schools in rotation. The best Candidate must acquit himself satisfactorily and produce a certificate of at least one year's attendance at the School.

§ Tenable for three successive years, subject to annual matriculation, except for the third Session if spent at a Scottish University. Competitors must have the Degree of B.A. The second *triennial* competition will take place next Session.

¶ Competitors may belong to any Presbyterian Church in the Dominion.

BURSARIES.

These are awarded to deserving Students, being Matriculants, when preparing for the Ministry in connection with the Church of Scotland. Recipients must sign a written obligation to repay the money should they change their intention with regard to the Ministry. Recommendations accompanying contributions for the benefit of particular Students, whether Matriculants or not, are duly observed. (See By-laws.)

UNIVERSITY PRIZES.

- I. PRINCE OF WALES.—Probable value \$60—for the best papers at the Examination for B.A.
- II. MONTREAL.—Value \$16—for the best papers at the third Pass Examination.
- III. MONTREAL.—Value \$16—for the best papers at the second Pass Examination.
- IV. MONTREAL.—Value \$16—for the best papers at the first Pass Examination.

These prizes are given in books.

- V. LEWIS.—Value \$25—for the best Lecture on the first Psalm, to be given in to the Registrar on or before the second Monday of November. Open to Students of Theology.

FACULTY OF MEDICINE.

GRADUATION.

I. Candidates must pass a Matriculation Examination.

II. They must produce to the Senate, at such time as the Senate may appoint, satisfactory Certificates showing—

1. That they are of the full age of twenty-one years.
2. That they are persons of good moral character.
3. That they have been registered, after Matriculation.
4. That they have been engaged in Medical Studies for a period of four years. (One year's instruction under a qualified Medical Practitioner prior to attendance upon public lectures is regarded as equivalent to a year at College, and Graduates in Arts may complete their course by three years' attendance upon public lectures.)
5. That their attendance upon public lectures has been at least four-fifths of the teaching time of each Session, reckoned with regard to each subject mentioned in clause six of this By-law; provided always that allowance may be made for sickness.
6. That they have attended lectures in the following branches: General and Practical Anatomy, Materia Medica and Pharmacy, Physiology or Institutes of Medicine, and Chemistry, two courses of six months each; and Practical Chemistry, one course of three months; Theory and Practice of Medicine, Principles and Practice of Surgery, Midwifery and Diseases of Women and Children, two courses of six months each; and Medical Jurisprudence, Clinical Medicine, Clinical Surgery, and Botany, one course of three months each; and that during the first year the attendance has been confined to the four subjects first mentioned.
7. That they have compounded Medicines, &c., for two periods of six months, or one period of twelve months, in the office of a duly qualified Practitioner, and have attended at least six cases of Midwifery.

III. Candidates must pass an Examination on all the subjects mentioned in the preceding By-law; but the Examination may consist of two parts—a *Primary* and a *Final*.

IV. Candidates must compose an approved Thesis on some Medical subject.

The Degree of M.D. entitles the holder to the Diploma of the Royal College of Surgeons, London, on passing the required Examination.

Royal College of Physicians and Surgeons, Kingston.

Incorporated by Act of Parliament and Affiliated to the University in 1866.

THE SESSION BEGINS ON THE FIRST WEDNESDAY OF OCTOBER.

TEACHING STAFF.

JOHN R. DICKSON, M.D., M.R.C.P.L., M.R.C.S.E., and F.R.C.S., Edin., PRESIDENT,
Professor of Clinical of Surgery.

FIFE FOWLER, M.D., L.R.C.S., Edin., REGISTRAR,
Professor of Materia Medica.

HORATIO YATES, M.D.,
Professor of the Principles and Practice of Medicine, and Lecturer on
Clinical Medicine.

MICHAEL LAVELL, M.D.,
Professor of Obstetrics and Diseases of Women and Children.

MICHAEL SULLIVAN, M.D.,
Professor of Surgery and Surgical Anatomy.

OCTAVIUS YATES, M.D.,
Professor of the Institutes of Medicine and Sanitary Science.

JAMES NEISH, M.D.,
Professor of Descriptive and Regional Anatomy.

THOMAS R. DUPUIS, M.D.,
Professor of Botany.

NATHAN F. DUPUIS, M.A., (Professor of Chemistry and Natural History,
Queen's University),
Professor of Chemistry and Practical Chemistry.

ALFRED S. OLIVER, M.D.,
Professor of Medical Jurisprudence.

HERBERT J. SAUNDERS, M.D., M.R.C.S.E.
Demonstrator of Anatomy.

Certificates of attendance at this College are recognized by the Royal
Colleges of Surgeons of London and Edinburgh.

The new premises of the College are commodious and convenient.
Unequalled facilities are presented for the study of Practical Anatomy,
and great advantages for clinical instruction are afforded at the General
Hospital and Hotel Dieu.

Full information as to subjects of study, fees, &c., may be obtained on
application to the Registrar.

HIGH SCHOOL.

RECTOR—SAMUEL WOODS, M.A.

VISITORS—The Arts Professors of Queen's College.

The College Preparatory School and the Kingston County Grammar School, now the City of Kingston High School, were united and affiliated to the University in 1862.

Classical and French Master SAMUEL WOODS, M.A.
Mathematical Master THOMAS GORDON.
Assistant Classical and English Master JAMES C. THOMAS.
Preparatory Classes E. DE ST. REMY.
Drawing Master MR. LIGHT.

FEES PER TERM.

1. Junior Classes	\$3 50
2. Senior Classes	4 50
3. Preparatory Classes	5 00
4. Drawing	3 00

Winter Term begins 7th January.

Spring Term begins first Wednesday after Easter.

Summer Term begins 16th August.

Autumn Term begins on Monday after 15th October.

The School is provided with a full and efficient staff of Masters, gives a thorough Grammar School Education, and prepares for the University. Particular attention is bestowed upon the Commercial Branches.

HONOUR AND PRIZE LISTS.

SESSION 1870-71.

FELLOWS.

ARTS—Robert Campbell, M.A., Brockville.
THEOLOGY—Rev. Donald Ross, B.D., Chatham, Q.
LAW—William Tassie LL.D., Galt.
MEDICINE—James Neish, M.D., Kingston.

GRADUATES.

DOCTOR OF DIVINITY.—Rev. John Hogg, Guelph, Ont., and Rev. John Cunningham Giekie, London, England.
DOCTOR OF LAWS—William Tassie, M.A., Head Master, High School, Galt, and Rev. Alexander F. Kemp, M.A., Professor of Mental Philosophy, Olivet College, Michigan, U.S.
DOCTOR OF MEDICINE—(alphabetical list)—Gerald Bernard, Ellswood Chaffey, Walter D. P. W. Day, Archibald Cunningham Fairbairn, Niel Gillies, Kenneth Gunsolus, William Higginbotham, William Ross Houston, Edward Kidd, James Lafferty, John Ross Van Allen, David Young.
BACHELOR OF ARTS—(order of merit)—1, Hugh Urquhart Bain; 2, Kenneth Neander Fenwick; 3, Robert John Craig; 4, Andrew McCulloch.

PASS MEN.

ORDER OF MERIT.

THEOLOGY—*Second Year*—John Francis Fraser, B.A.
First Year—Ebenezer Duncan McLaren, B.A.
ARTS—*Fourth Year*—The Bachelors above named.
Third Year—1, Archibald Patterson Knight; 2, Malcolm McGil-livray; 3, James Cormack.
Second Year—1, William Arthur Lang; 2, Angus Crawford; 3, Peter C. McNee; 4, William Donald; 5, Robert Shaw.
First Year—1, George Gillies; 2, John Inkerman MacCraken; 3, Donald McIntyre; 4, James J. Craig; 5, William John Gibson; 6, John Augustus Craig; 7, John Ross Mitchell; 8, John Mathieson Kinghorn.
MEDICINE—*Primary Examination*—(alphabetical list)—James Brien, John Clarke, John Gerin, Ashbel S. Rockwell.

HONOUR MEN.*

ARTS—*Fourth Year*—1. Hugh Urquhart Bain, first class in Classics, in Mineralogy and Geology, and in History, and second class in Natural Philosophy. 2. Kenneth Neander Fenwick, first class in Mineralogy and Geology, and in History, and second class in Natural Philosophy. 3. Robert John Craig, first class in Mineralogy and Geology, and in History. 4. Andrew McCulloch, first class in History.

Second Year—Peter C. McNee, second class in Mathematics.

/ SCHOLARSHIPS.

ARTS.

1. *Leitch Memorial* (1)—George Gillies.
2. *Watkins*—Donald McIntyre.
3. *Campbell*—John Augustus Craig.
4. *Mowat*—John Mathieson Kinghorn.
5. *St. Paul's*, Montreal (1)—James J. Craig.
6. *Hardy*—William Arthur Lang.
7. *Synod* (1)—Angus Crawford.
8. *St. Andrew's*—Peter C. McNee.
9. *Henry Glass Memorial*—William Donald.
10. *Synod* (2)—Archibald Patterson Knight.
11. *Aberdeen*—Malcolm McGillivray.
12. *Synod* (3)—Robert John Craig.

THEOLOGY.

1. *Dominion*—Ebenezer Duncan McLaren, B.A.
2. *Leitch Memorial* (2)—John Francis Fraser, B.A. (retains it from last year.
3. *Colonial Committee* (4)—Peter Stratton Livingston, B.A.

UNIVERSITY PRIZES.

ARTS.

Prince of Wales—For best papers at the examination for B.A., Hugh Urquhart Bain.

Montreal—For the best Pass Papers, *third year*, Archibald P. Knight.

Montreal—For the best Pass Papers, *second year*, William A. Lang.

Montreal—For the best Pass Papers, *first year*, George Gillies.

THEOLOGY.

Lewis—For Lecture on Mat. 17, 1-9, Peter A. Livingston, B.A.

CLASS PRIZES.

CLASSICS—*Fourth Year*—Hugh U. Bain. *Third Year*—Archibald P. Knight. *Second Year*—William A. Lang. *First Year*—1. John Judson Campbell. 2. John I. MacCraken, George Gillies, equal.

MATHEMATICS—*Junior*—William John Gibson, John Inkerman MacCraken, Donald Malcolm McIntyre, equal. *Senior*—1. William Arthur Lang. 2. Angus Crawford. 3. Peter C. McNee.

* For residences of students see pp. 27, 28.

NATURAL PHILOSOPHY—*Junior*—1. Archibald Patterson Knight. *Senior*—1. Hugh Urquhart Bain, Kenneth Neander Fenwick, equal. 2. Robert John Craig.

HISTORY—Hugh Urquhart Bain.

ENGLISH LITERATURE—Angus Crawford. Honourably mentioned—William A. Lang.

ENGLISH LANGUAGE—George Gillies. Honourably mentioned—Donald McIntyre.

FRENCH—*Third Year*—A. P. Knight. *Second Year*—William A. Lang. Honourably mentioned—John Snodgrass, Peter C. McNee.

LOGIC—William Arthur Lang and John A. Snodgrass, equal. Honourably mentioned—Angus Crawford, William Donald.

METAPHYSICS—Archibald P. Knight. Honourably mentioned—Malcolm McGillivray, James Cormack. For Summer Essay on *Induction*—Malcolm McGillivray.

ETHICS—Hugh U. Bain. Honourably mentioned—Kenneth N. Fenwick, Robert J. Craig. For Summer Essay on *Utilitarianism*—Thomas H. McGuire, B.A., Kingston.

NATURAL HISTORY—*Fourth Year*—1. Kenneth Neander Fenwick. Honourably mentioned—Hugh U. Bain, Robert John Craig. *Third Year*—1. Archibald P. Knight and Malcolm McGillivray, equal. Honourably mentioned—James Cormack. *Second Year*—Chemistry—1. Angus Crawford. Honourably mentioned—William Arthur Lang.

HEBREW—*First Year*—Ebenezer Duncan McLaren, B.A.

DIVINITY—Ebenezer Duncan McLaren, B.A., Macleod Prize. Class merit list—(determined by monthly examinations)—*Third Year*—Peter S. Livingston, B.A. *Second Year*—John Francis Fraser, B.A. *First Year*—Ebenezer D. McLaren, B.A.

LIST OF STUDENTS IN SESSION 1870-71.

FACULTY OF ARTS.

Name.	Year in Curriculum.	Residence.
Bain, Hugh Urquhart ...	4 ...	Perth.
Campbell, John Judson ...	1 ...	Perth.
Cameron, Alexander Henry ...	... ..	New Glasgow, N. S.
Cormack, James ...	3 ...	Kingston.
Craig, James J....	1 ...	Charlottenburgh.
Craig, John Augustus...	1 ...	Kingston.
Craig, Robert John ...	4 ...	Kingston.
Crawford, Angus ...	2 ...	Cobourg.
Donald, William ...	2 ...	Burnbrae.
Fenwick, Kenneth Neander ...	4 ...	Kingston.
Gage, Robert ...	... ..	Kingston.
Gibson, William John...	1 ...	Township of Kingston.
Gillies, George ...	1 ...	Middleville.
Kinghorn, John Mathieson ..	1 ...	Kingston.
Knight, Archibald Patterson...	3 ...	Renfrew.
Lang, William Arthur...	2 ...	Almonte.
MacCraken, John Inkerman ...	1 ...	Ottawa.
McCulloch, Andrew ...	4 ...	Nelson.
McEachern, Duncan ...	... ..	Lochaber.
McGillivray, Malcolm ...	3 ...	Collingwood.
McIntyre, Donald ...	1 ...	Kingston.
McNee, Peter C. ..	2 ...	Perth.
Mitchell, John Ross ...	1 ...	Montreal.
Shaw, Robert ...	2 ...	Kingston.
Snodgrass, John Allan...	... ..	Kingston.

FACULTY OF THEOLOGY.

Name.	Year in Curriculum.	Residence.
Fraser, John Francis B.A. ...	2 ...	Kingston.
Gandier, Joseph ...	2 ...	Harold.
Livingston, Peter Stratton B.A. ...	3 ...	Dawn Mills.
McLaren, Ebenezer Duncan B.A. ...	1 ...	Komoka.

UNDERGRADUATES IN MEDICINE.

Name.	Year in Curriculum.			Residence.
Bastow, Joseph William	...	1	...	Kingston.
Bernard, Gerald	...	3	...	Kingston.
Bisset, J.	3	...	Warsaw.
Bonter, George Shuter...	...	1	...	Trenton.
Brien, James	...	2	...	Ridgetown.
Carruthers, George	...	2	...	Kingston.
Chaffey, Ellswood	...	3	...	Kingston.
Clarke, John	...	3	...	Peterborough.
Cronk, S. D.	...	3	...	Northport.
David, Alfred	...	1	...	Pictou.
Day, W. D. P. W.	...	4	...	Kingston.
Fairbairn, Archibald C.	...	4	...	Brockville.
Ferguson, D. A....	...	2	...	Perth.
Ford, Herbert Douglas	...	1	...	Kingston.
Gerin, John	...	2	...	Cobourg.
Gerow, A. M.	...	3	...	Stirling.
Gillies, Neil	...	3	...	Paisley.
Gunn, William A.	...	2	...	Kingston.
Gunsolus, Kenneth	...	4	...	Napanee.
Herchmer, George F.	3	...	Red River.
Higinbotham, William	...	4	...	Bridgewater.
Houston, William R.	...	4	...	Louisville.
Jones, John	...	1	...	Kingston.
Kennedy, Bruce	...	1	...	Smithville.
Kidd, Edward	...	4	...	Prospect.
Lafferty, James...	...	4	...	Perth.
Lavell, Charles H.	...	2	...	Kingston.
McAdam, S. T.	3	...	Pakenham.
McMahon, James	...	2	...	Kingston.
McNamara, P. B.	...	2	...	Kingston.
Morrow, James J.	...	3	...	South Mountain.
Morton, William R.	...	2	...	Kingston.
Newell, James	...	1	...	Springfield.
Purcell, M. J.	...	3	...	Kingston.
Purdy, Alvanly Newton	...	1	...	Loughborough.
Rockwell, Ashbel Starr	...	3	...	Violet.
Van Allen, John Ross	...	4	...	Chatham Ont.
Young, David	...	2	...	Sarnia.

QUEEN'S UNIVERSITY.

Session 1871-72.



Pass Examination Papers
IN ARTS.

KINGSTON :

1872.

SECOND YEAR.

LATIN PROSE.

EXAMINER—PROFESSOR MACKERRAS, M.A.

Translate—Livy, Bk. XXII, Cap. 28.

Ager omnis medius erat prima specie inutilis insidiatori, quia non modo silvestre quicquam, sed ne vepribus quidem vestitum habebat, re ipsa natus tegendis insidiis eo magis, quod in nuda valle nulla talis fraus timeri poterat : et erant in anfractibus cavæ rupes, ut quædam earum duceños armatos possent capere. In has latebras, quot quemque locum apte insidere poterant, quinque millia conduntur peditum equitumque : necubi tamen aut motus alicujus temere egressi, aut fulgor armorum fraudem in valle tam aperta detegeret, missis paucis prima luce ad capiendum quem ante diximus tumulum, avertit oculos hostium. Primo statim conspectu contempta paucitas ; ac sibi quisque deposcere pellendos inde hostes ad locum capiendum. Dux ipse inter stolidissimos ferocissimosque ad arma vocat, et vanis animis et minis increpat hostem : principio levem armaturam dimittit, deinde conserto agmine mittit equites ; postremo, cum hostibus quoque subsidia mitti videret, instructis legionibus procedit. Et Hannibal laborantibus suis alia atque alia, ut crescente certamine, mittens auxilia peditum equitumque, jam justam expleverat aciem, ac totis utrimque viribus certatur. Prima levis armatura Romanorum, præoccupatum inferiore loco succedens tumulum, pulsa detrusaque terrorem in succedentem intulit equitem, et ad signa legionum refugit. Peditum acies inter percussos inpavida sola erat, videbaturque, si justa ac si recta pugna esset, haudquaquam impar futura : tantum animorum fecerat prospere ante paucos dies res gesta : sed exorti repente insidiatores eum tumultum terroremque in latera utrimque ab tergoque incursantes fecerunt, ut neque animus ad pugnam neque ad fugam spes cuiquam superesset.

1. Parse *vestitum*, *tegendis*, *poterat*, *insidere*, *egressi*, *detegeret*, *avertit*, *contempta*, *deposcere*, *pellendos*, *increpat*, *conserto*, *certatur*, *detrusa*, *percussos*, *exorti*, *incursantes*, *superesset*.
2. Give the etymology of *anfractus*, *condo*, *necubi*, *oculus*, *stolidus*, *Hannibal*, *animus*.
3. *Ager*, *medius*, *vestis*, *natus*, *tego*, *quinque*, *levis*. What Greek words are derived from the same stems as these ?
4. *Specie*, *vepribus*, *insidiis*, *eo*, *conspectu*, *hostes* (after *inde*), *animorum*. Explain the government of these.
5. *Non modo*. What is its force here ?
6. *Detegeret*—*deposcere*. Account for these Moods.
7. *Alia atque alia*. What do they qualify ?
8. *Egressi*. To what equivalent here ?

9. *Pugna justa—pugna recta.* Distinguish between these.
10. *Ante paucos dies.* What do you remark as to this construction?
11. To what dangers was the Roman State exposed at this crisis?
12. Can we rely on the accuracy of this History? State the grounds of your opinion.
13. Point out the beauties of the speeches in Livy. Which do you regard as the best in this Book?
14. Describe the formation of a Roman camp.
15. What was a Triumph? an Ovation? What were the conditions of a *Justus Triumphus*?
16. How many names had a Roman? What were they? Whence derived? Illustrate.
17. Describe the origin, functions and privileges of the Augurs.
18. What classes generally manned the Roman navy?

FIRST YEAR.

LATIN.

EXAMINER—PROFESSOR MACKERRAS, M.A.

Translate—Virgil, *Æneid*, Bk. XII. vv. 365-382.

Ac, velut Edoni Boreae quum spiritus alto	365
Insonat Aegaeo, sequiturque ad litora fluctus,	
Qua venti incubuere, fugam dant nubila coelo :	
Sic Turno, quacumque viam secat, agmina cedunt,	
Conversaeque ruunt acies ; fert impetus ipsum,	
Et cristam adverso curru quatit aura volentem.	370
Non tulit instantem Phegeus, animisque frementem :	
Obiect sese ad currum, et spumantia frenis	
Ora citatorum dextra detorsit equorum.	
Dum trahitur, pendetque jugis, hunc lata resectum	
Lancea consequitur, rumpitque infixæ bilicem	375
Loricam, et summum degustat vulnere corpus.	
Ille tamen, clypeo objecto, conversus in hostem	
Ibat, et auxilium ducto mucrone petebat ;	
Quum rota praecipitem, et procursu concitus axis,	
Impulit, effunditque solo : Turnusque secutus,	380
Imam inter galeam, summi thoracis et oras,	
Abstulit ense caput, truncumque reliquit arenae.	

1. Parse *insonat*, *incubuere*, *secat*, *conversae*, *ruunt*, *quatit*, *instantem*, *frementem*, *citatorum*, *detorsit*, *trahitur*, *pendet*, *resectum*, *rumpit*, *infixæ*, *objecto*, *concitus*, *impulit*, *abstulit*, *reliquit*.
2. Give the etymology of *altus*, *crista*, *spumo*, *bilix*, *auxilium*, *praeceps*.
3. *Sequor*, *nubilum*, *coelum*, *fremo*, *equus*, *dextra*, *jugum*, *galea*, *linguo*. What Greek words correspond to these, as regards stem-letters ?
4. *Coelo*, *Turno*, *jugis*, *arenae*. Explain the government of these.
5. *Edones*. Who ?
6. *Hostis*. What was its original meaning ?
7. *Impulit*. What is the subject ?
8. Scan vv. 370, 371.
9. Sketch the character of Turnus.
10. What do you remark of the engagement described in this Book ? Of what is it made up ? Wherein does the Epic poet here display his talent ?

11. Anacoluthon, Parenthesis, Hendiadys, Syllepsis. Give the etymology of these figures of Syntax.
12. Of what roots is the Substantive Verb in Latin composed? What are their Greek correspondents?
13. *Ero, sim, essem, fuerim*. What was the original form of these?
14. What suffix marks the Preterite Passive Participle in Greek and Latin?
15. *Creavi, secui, dedi, clepsi, rexi*. Account for these varied forms of the Perfect Tense.
16. *Amavi, amarem, amare*. What was the original form of these?
17. Give a sketch of the history of the Senatorial and Equestrian Orders, and describe their respective qualifications, privileges and insignia.
18. Describe the Classes and Centuries into which Servius Tullius divided the Roman People.

FIRST YEAR.

GREEK PROSE.

EXAMINER—PROFESSOR MACKERRAS, M.A.

Translate—Lucian, Charon, pp. 43, b—43, e.

ἢ τί γὰρ οὐκ ἂν ποιήσειεν ἐκεῖνος ὁ τὴν οἰκίαν σπονδῇ οἰκοδομούμενος, καὶ τοὺς ἐργά-
τας ἐπισπέρχων, εἰ μάθοι, ὅτι ἡ μὲν ἔξει τέλος αὐτῶ· ὁ δὲ, ἄρτι ἐπιθεὶς τὸν ὄροφον,
ἄπιος, τῷ κληρονόμῳ καταλιπὼν ἀπολαύειν αὐτῆς, αὐτὸς μὴδὲ δειπνήσας ἄθλιος ἐν αὐτῇ;
ἐκεῖνος μὲν γὰρ ὁ χαίρων, ὅτι ἄρρενα παῖδα ἔτεκεν αὐτῷ ἡ γυνή, καὶ φίλους διὰ τοῦτο
ἔστιων, καὶ τοῦνομα τοῦ πατρὸς τιθέμενος, εἰ ἡκίστατο, ὥς ἐπαέτης γενόμενος ὁ παῖς
τεθνήξεται, ἄρα ἂν σοι δοκῇ χαίρειν ἐπ' αὐτῷ γενομένῳ; ἀλλὰ το αἴτιον, ὅτι τὸν μὲν
εὐτυχοῦντα ἐπὶ τῷ παιδί ἐκεῖνον ὄρᾳ, τὸν τοῦ ἀθλητοῦ πατέρα τοῦ Ὀλύμπια νενικηκότος
τὸν γείτονα δὲ, τὸν ἐκκομίζοντα τὸ παιδίον, οὐχ ὄρᾳ, οὐδὲ οἶδεν ἄφ' οἷας αὐτῷ κρόκης
ἐκρέματο. τοὺς μὲν γὰρ περὶ τῶν ὄρων διαφερομένους ὄρᾳς, ὅσοι εἰσὶ, καὶ τοὺς ξυνα-
γείροντας τὰ χρήματα, εἴτα, πρὶν ἀπολαῦσαι αὐτῶν, καλουμένους ὑφ' ὧν εἶπον ἐπιόντων
ἀγγέλων τε, καὶ ὑπηρετῶν.

1. Parse ποιήσειεν, ἐπισπέρχων, μάθοι, ἔξει, ἐπιθεὶς, ἄπιος, καταλιπὼν, ἔτεκεν, ἔστιων, τιθέμενος, ἡκίστατο, τεθνήξεται, δοκῇ, γενομένῳ, εὐτυχοῦντα, ὄρᾳ, νενικηκότος, οἶδεν, ἐκρέματο, ξυναγείροντας, ἀπολαῦσαι, καλουμένους, ἐπιόντων.
2. αὐτῆς, Ὀλύμπια, αὐτῷ (before κρόκης). Explain the government of these.
3. Render fully the difference of meaning between πρὶν ἀπολαύειν, πρὶν ἀπολαῦσαι, and πρὶν ἀπολελανκέναι.
4. ἄρα. What is its force? To what equivalent in Latin?
5. Distinguish between τοῦνομα τιθεὶς and τοῦνομα τιθέμενος.
6. καλουμένους. Why in the *Present Participle*?
7. Point out where the Protasis and Apodosis in the first clause of this passage respectively begin and end.
8.ἔστιων, καὶ τοῦνομα τοῦ πατρὸς τιθέμενος. What are the Indo-European roots of words 1, 3, 5 and 6 in this sentence? Give Latin derivations from same stem-letters.
9. Account for these forms, *Present* λίσσομαι, *Future* λίσσομαι.
10. δηῖοιο. Account for this concurrence of vowels.
11. What vowel is assumed by nouns derived from verbs whose radical vowel is ε? Give illustrations.
12. What was the original form of Ζεὺς πατήρ? Show how it became *Jupiter* in Latin.

13. What are the representatives in classic Greek of the original spirant Y?
14. Trace κλέος and gloria back to a common form.
15. μέλαινα, τείνω, πείρα. What was the original form of these?
16. What sounds, easy to other members of the Indo-European family, were difficult to the Greeks, and *vice-versâ*?
17. Who was Lucian?
18. What was his aim in writing this Dialogue?
19. Judging from this Dialogue, what do you regard as the prominent features of his mind?

FIRST YEAR.
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GREEK POETRY.
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EXAMINER—PROFESSOR MACKERRAS, M.A.

Translate—Hom. Il., Bk. I, vv. 245–265.

᾽Ως φάτο Πηλεΐδης, ποτὶ δὲ σκῆπτρον βάλε γαίῃ
Χρυσείοις ἥλοισι πεπαρμένον, ἔξετο δ' αὐτός.
Ἄτρεΐδης δ' ἐτέρωθεν ἐμήνιε. τοῖσι δὲ Νέστωρ
Ἰδυεπῆς ἀνόρουσε, λιγὺς Πυλίων ἀγορητής,
Τοῦ καὶ ἀπὸ γλώσσης μέλιτος γλυκίων ῥέεν αἰδή.
Τῷ δ' ἤδη δύο μὲν γενεαὶ μερόπων ἀνθρώπων
Ἐφθίαθ', οἳ οἱ πρόσθεν, ἅμα τράφεν ἡδ' ἐγένοντο
Ἐν Πύλῳ ἡγαθήῃ, μετὰ δὲ τριτάτοισιν ἄνασσαν.
Ὅ σφιν εὐφρονέων ἀγορήσατο καὶ μετέειπεν
᾽Ω πόποι, ἧ μέγα πένθος Ἀχαιΐδα γαῖαν ἰκάνει.
Ἦ κεν γηθήσαι Πρίαμος Πρίαμοιό τε παῖδ' εἰς,
Ἄλλοι τε Τρῶες μέγα κεν κεχαροῖατο θυμῷ,
Εἰ σφῶϊν τάδε πάντα πυθοῖατο μαρναμένοισιν,
Οἱ περὶ μὲν βουλῇ Δαναῶν, περὶ δ' ἐστὲ μάχεσθαι.
Ἄλλὰ πίθεσθ'· ἅμφω δὲ νεωτέρω ἐστὸν ἐμεῖο.
Ἦδὲ γάρ ποτ' ἐγὼ καὶ ἄρείοσιν ἥεπες ὑμῖν
Ἀνδράσιν ὠμίλησα, καὶ οὐ ποτέ μ' οἶγ' ἀθέριζον.
Οὐ γάρ πω τοίους ἶδον ἀνέρας, οὐδὲ ἰδωμαι,
Οἷον Πειρίθοόν τε Δρύαντά τε ποιμένα λαῶν
Καινέα τ' Ἐξάδιόν τε καὶ ἀντίθεον Πολύφημον,
[Θησέα τ' Αἰγείδην, ἐπιείκελον ἀθανάτοισιν.]

1. Parse βάλε, πεπαρμένον, ἔξετο, ἐμήνιε, ἀνόρουσε, τοῦ, ῥέειν, ἐφθίατο, τράφειν, ἄνασσαν, ἀγορήσατο, γηθήσαι, κεχαροῖατο, σφῶϊν, πυθοῖατο, μαρναμένοισιν, μάχεσθαι, πίθεσθε, ἀρείοσιν, ἀθέριζον, ἶδον, Καινέα.
2. Give the etymology of σκῆπτρον, μέροψ, θυμῷ, πνιθάνομαι, ὀμιλέω, ἀθερίζω.
3. Distinguish between γηθέω and χαίρω—νός and καινός. Give the Latin equivalents.
4. γαίῃ, ἥλοισι, τοῖσι, τῷ, γαῖαν, σφῶϊν, βουλῇ, Δαναῶν. Explain the government of these.
5. Account for the change of Tense from βάλε to ἔξετο.
6. Πειρίθοος, Πολύφημος, Θησεύς. Who?
7. Πύλος. Where?
8. Πρίαμος. Why so called? What was his original name?

9. *ἔζομαι*. What was its original form?

10. *τράφεν ἡδ' ἐγένοντο*. Is this an instance of *Hysteron Proteron*, or not? Give reasons for your opinion?

11. Which is the more correct reading of ver. 251:

ἐφθίαθ', οἱ οἱ πρόσθεν ἅμα τράφεν ἡδ' ἐγένοντο
or *ἐφθίαθ', οἱ οἱ πρόσθεν ἅμα τράφεν ἡδὲ γένοντο*.

State the grounds of your opinion.

12. *ἰδωμαι*. Why in the Conjunctive Mood?

13. Why is verse 265 regarded as spurious?

14. *ἀρείοσιν ἡέ περ ἑμὶν—οἶον Πειρίθοον*. Explain these constructions. What should they be, when rendered fully?

15. Where do the Protasis and Apodosis respectively begin and end in vv. 254–258?

16. Scan the following vv.:

οὔτε ποτ' ἐς πόλεμον ἅμα λαῶ θωρηχθῆναι.
οὐ γάρ πω τοίους ἴδον ἀνέρας, οὐδὲ ἰδωμαι.

Draw attention to and explain peculiarities therein.

17. What are the Indo-European root-letters of *φάτο* and *πεπαρμένον*? Give a list of Greek and Latin derivatives from these.

18. Decline the Present Indicative of the Græco-Italic form of the Indo-European AS, and mark the successive changes by which the several persons thereof have assumed their present form in Greek and Latin.

19. Trace *ἦν* and *eram* back to a common form.

FIRST YEAR.

LATIN.

EXAMINER—PROFESSOR MACKERRAS, M.A.

Translate—Hor. Car. Bk. I., 28, vv. 1-25.

NAUTA ET ARCHYTÆ UMBRA.

NAUTA.

Te maris et terræ numeroque carentis arenæ
Mensorem cohibent, Archyta,
Pulveris exigui prope litus parva Matinum
Munera; nec quidquam tibi prodest
Aeris tentasse domos, animoque rotundum
Percurrisse polum, morituro! 5

ARCHYTÆ Umbra.

Occidit et Pelopis genitor, conviva Deorum,
Tithonusque remotus in auras,
Et Jovis arcanis Minos admissus, habentque
Tartara Panthoiden, iterum Orco 10
Demissum; quamvis, clypeo Trojana refixo
Tempora testatus, nihil ultra
Nervos atque cutem Morti concesserat atræ;
Judice te non sordidus auctor
Naturæ verique. Sed omnes una manet nox, 15
Et calcanda semel via leti.
Dant alios Furiaë torvo spectacula Marti;
Exitio est avidum mare nautis;
Mixta senum ac juvenum densentur funera; nullum
Sæva caput Proserpina fugit. 20
Me quoque devexi rapidus comes Orionis
Illyricis Notus obruit undis.
At tu, nauta, vagæ ne parce malignus arenæ
Ossibus et capiti inhumato
Particulam dare. 25

1. *Parse carentis, prodest, tentasse, percurrisse, morituro, occidit, Minos, Tartara, refixo, testatus, manet, calcanda, mixta, senum, densentur, fugit, Orionis, obruit, parce, ossibus.*
2. Give the etymology of *rotundus, occido, arcanum, Orcus, nihil, judex, calco, nauta, juvenis, funus, malignus.*
3. *Numero, litus, quidquam, Orco, exitio.* Explain the government of these.
4. *Domus, nervus, maneo, letum, torvus, caput, fugio.* Give Greek words, whose stems correspond to these.
5. *Morituro.* Why thus placed?

6. *Matinum litus—Illyricis undis.* Where?
7. *Archytas—Pelopis genitor—Tithonus—Panthoides.* Who?
8. *Jovis arcanis Minos admissus—Panthoiden iterum Orco demissum.* Explain these allusions.
9. *Nullum saeva caput Proserpina fugit.* (1) What figure does this illustrate? (2) Explain the allusion.
10. Explain the reference in vv. 23. 24.
11. Interpret the legend regarding the abduction by Pluto of Proserpine, daughter of Ceres.
12. Scan vv. 2, 21, 24. Draw attention to any metrical peculiarities therein.
13. What metres are employed in this Ode? Give technical names.
14. What is the purport of this Ode?
15. Sketch Horace's philosophical principles, tastes and habits, so far as you have been able to glean these from this Book.
16. Which is the older form, *sumsi* or *sumpsi*? Account for the change.
17. What in Greek and Latin represents Indo-European DH (1) initial, (2) medial. Give illustrations.
18. What suffix in Latin and Greek indicates "*full of*." Trace these back to a common form.

SECOND YEAR.

LATIN POETRY.

EXAMINER—PROFESSOR MACKERRAS, M.A.

Translate—Vir. Geor. Bk. IV., vv. 165-190.

Sunt quibus ad portas cecidit custodia sorti ;	165
Inque vicem speculantur aquas et nubila coeli ;	
Aut onera accipiunt venientum, aut, agmine facto,	
Ignavum, fucos, pecus a praesepebus arcent :	
Fervet opus, redolentque thymo fragrantia mella.	
Ac veluti, lentis Cyclopes fulmina massis	170
Quum properant, alii taurinis follibus auras	
Accipiunt redduntque, alii stridentia tingunt	
Aera lacu ; gemit impositis incudibus Aetna :	
Illi inter sese magna vi brachia tollunt	
In numerum, versantque tenaci forcipe ferrum :	175
Non aliter, si parva licet componere magnis,	
Cecropias innatus apes amor urguet habendi,	
Munere quamque suo. Grandaevus oppida curae,	
Et munire favos, et Daedala fingere tecta :	
At fessae multa referunt se nocte minores,	180
Crura thymo plenae ; pascuntur et arbuta passim,	
Et glaucas salices, casiamque, crocumque rubentem,	
Et pinguem tiliam, et ferrugineos hyacinthos.	
Omnibus una quies operum, labor omnibus unus.	
Mane ruunt portis ; nusquam mora : rursus, eadem	185
Vesper ubi e pastu tandem decedere campis	
Admonuit, tum tecta petunt, tum corpora curant ;	
Fit sonitus, mussantque oras et limina circum.	
Post, ubi jam thalamis se composuere, siletur	
In noctem, fessosque sopor suus occupat artus.	190

1. Parse *cecidit, sorti, praesepebus, arcent, fervet, redolent, follibus, stridentia, tingunt, aera, gemit, incudibus, forcipe, urget, fingere, crura, pascuntur, mane, mussant, siletur*.
2. Give the etymology of *ignavus, redoleo, Cyclops, fulmen, Aetna, tenax, forceps, apes, Daedalus, multus, passim, rursus, occupo, artus*.
3. *Nubilum, arceo, ferveo, mel, massa, tingo, vis, tectum, plenus, unus, vesper, campus, sopor, artus*. What Greek words are derived from the same stems as these ?
4. Parse *Georgicon*.
5. *Quibus, sorti, magnis, quamque, curae, crura, thymo, arbuta, omnibus*. Explain the government of these.
6. *Properant—munire*. Account for these Moods.
7. *Non aliter—siletur in noctem*. Supply the ellipsis in each.

8. Distinguish between *brachium* and *lacertus*—*pecudem* and *pecus*—*arbutos* and *arbuta*.
9. *Amor habendi*. Render this in Greek.
10. *Cecropias apes*—*Daedala tecta*. Explain these allusions.
11. *Vicem*—*vi*—*vesper*. Decline the singular of each of these.
12. *Oras et limina circum*. What figure?
13. Scan ver. 182. Note anything peculiar.
14. At whose request and for what end was this Poem undertaken?
15. What do you consider the finest passages in this Book?
16. *Fissus*, *passus*, *pressus*. What were the original forms of these? Trace the change.
17. *Cado*, *casum*; *video*, *visum*; *juvo*, *jutum*. Account for the difference in quantity of the Radical Vowel in the Present and Supine.
18. *Amatum*, *datum*, *domitum*, *sectum*. Account for these varied forms of the Supine in the First Conjugation.

FIRST YEAR.

JUNIOR MATHEMATICS.

EXAMINER—PROFESSOR WILLIAMSON.

1. If two chords in a circle cut one another, the rectangle under the segments of the one is equal to the rectangle under the segments of the other.
2. Inscribe a semicircle in a given quadrant.
3. If the first has to the second the same ratio which the third has to the fourth, but the third to the fourth a greater ratio than the fifth to the sixth, the first shall also have to the second a greater ratio than the fifth to the sixth.
4. What are *similar* rectilinear figures? What are the different cases in which triangles are similar?
5. If the vertical angle of a triangle and its exterior angle be each bisected by lines, cutting in the one case the base and in the other the base produced, show that the base produced is cut harmonically.
6. Prove that if three straight lines are in continued proportion, the rectangle contained by the extremes is equal to the square of the mean.
7. In a right-angled triangle the rectilinear figure described on the side opposite the right angle is equal to the similar rectilinear figures similarly described on the side containing the right angle.

If on any two segments of the diameter of a semicircle semicircles be described, the area included between the three circumferences is equal to the area of a circle whose diameter is the mean proportional between the segments.

8. Define the sine, cosine, tangent, secant of an angle. What is the value of the sines and cosines respectively of 0° , 30° , 90° to the radius 1.
9. If a perpendicular be drawn from any angle of a triangle to the opposite side the sum of the segments of the base shall be to the sum of the sides as the difference of the sides to the difference of the segments of the base.

FIRST YEAR.

JUNIOR MATHEMATICS.

EXAMINER—PROFESSOR WILLIAMSON.

1. Prove the rule for finding the G. C. M. of two Algebraic quantities.

2. Simplify the fraction $\frac{x^3 - 2x^2 - 2x + 1}{5x^2 - 7x - 1}$.

also the expression $\left(\frac{x^2}{y^2} - 1\right) \left(\frac{x}{x-y} - 1\right) + \left(\frac{x^3}{y^3} - 1\right)$
 $\left(\frac{x^2 + xy}{x^2 + xy + y^2} - 1\right)$

3. Shew that $\frac{a+x}{b+x} > \frac{a}{b}$ when $a < b$, and $<$ when $a > b$.

4. Divide $1+x+x^2$ by $1+\frac{1}{x}+\frac{1}{x^2}$

5. Solve the Equations—

$$1. \frac{4x+3}{9} = \frac{8x+19}{18} - \frac{7x-29}{5x-12}$$

$$2. \frac{4}{x-8} + \frac{3}{2x-16} - 1\frac{5}{24} = \frac{2}{3x-24}$$

$$3. \frac{3}{10-x} - 1 = \frac{4}{x-7}$$

$$4. \sqrt{2x+4} - \sqrt{\frac{x}{2}} + 6 = 1$$

$$5. \frac{1}{x} + \frac{1}{y} = 5$$

$$\frac{1}{x^2} + \frac{1}{y^2} = 13$$

$$6. x^2 + xy + y^2 = a^2.$$

$$x + x^{\frac{1}{2}}y^{\frac{1}{2}} + y = b.$$

6. Prove that a simple equation can have only one root, and that a quadratic equation can have only two roots.

7. A cistern can be filled by two pipes running together in 5 hrs. 50'. The larger pipe by itself will fill it sooner than the smaller, by 4 hours. What time will each take separately to fill it?

8. The sides of a triangle are as $2\frac{1}{2} : 3\frac{3}{4} : 8$, and the perimeter 285 yards. Find the sides.
9. Prove the expressions for the sum, 1st, of an Arithmetical Progression, and 2nd, of a Geometrical Progression.
10. Find the sum of the common series of numbers 1, 2, 3, &c., 1st to n terms, and 2nd to $n+1$ terms.
11. Sum the series 1, 3, 5, 7, 9, to 20 terms.
 $1-2, 4-8, \dots$ to 10 terms.
 $\frac{1}{3}, \frac{2}{9}, \frac{4}{27}, \dots$ to 7 terms.

FIRST YEAR.

ENGLISH LANGUAGE.

EXAMINER—PROFESSOR FERGUSON.

1. Give a Chart of the Teutonic Languages.
2. State the distinction between an inflected and an uninflected language, and exemplify some of the changes in English in its passage from an inflected to an uninflected state.
3. Classify the letters of the alphabet according to the organs of speech by which they are uttered.
4. Give Grimm's tables of the variations of consonants in the Indo-Germanic Languages, and illustrate by such words as Garden, Deer, Beech, Child, Daughter, Father.
5. Decline the Anglo-Saxon nouns Rice, Sunu, Burh, Eage, Sweostor, also the adjectives God and Eadig, definitely and indefinitely.
6. Conjugate Lufian and give the principal parts of Cunnan, Sculan, Magan, Agan and Witan.
7. What orthographical expedients have been adopted in English to mark vowels as long or short?
8. State the origin of the inflectional terminations of nouns and of the tenses and persons of verbs, and illustrate by the future of Latin and Romance verbs and the perfect of Anglo-Saxon verbs.
9. How is the plural form of nouns in *s* to be accounted for?
10. What expedients have been adopted in English to express distinction of Gender?; and explain such forms as Songstress and Seamstress.
11. Trace the history of third possessive pronoun neuter.
12. Mention the four classes of derived verbs.
13. Explain the double preterite in some English verbs, and mention the two classes into which they may be divided.
14. Mention the three classes of weak verbs.

15. Translate—Thæt Eastland is swythe mycel, and thær bith swythe manig burh, and on ælcere byrig bith cyninge, and thær bith swythe mycel hunig and fiscath; and se cyning and tha ricostan men drincath myran meole, and tha unspedigan and tha theowan drincath medo. Thær bith swythe mycel gewinn betweenan him, and ne bith thær nænig ealo gebrowen mid Estum, ac thær bith medo genoh. And thær is mid Estum theaw, thonne thær bith man dead, thæt he lith iune unforbærned, mid his magum and freondum, monath, gehwylum twegen: and tha kyningas and tha othre heahthungene men swa micle lencg swa hī maran speda habbath, hwylum healf gear thæt hi beoth unforbærned, and ligath bufan eorthan on hyra husum. Parse byrig, licgath, lith, drincath, twegen, heahthungene.

GREEK PROSE.

EXAMINER—PROFESSOR MACKERRAS, M.A.

Translate—Demosth. Phil. I., 44—46.

Οὐκ ἐμβησόμεθα ; οὐκ ἔξιμεν αὐτοὶ μέρος γέ τινα στρατιωτῶν οἰκείων νῦν, εἰ καὶ μὴ πρότερον ; οὐκ ἐπὶ τὴν ἐκείνου πλευσόμεθα ; Ποῖ οὖν προσορμούμεθα ; ἤρετό τις. Εὐρήσει τὰ σαθρὰ, ὧ ἄνδρες Ἀθηναῖοι, τῶν ἐκείνου πρυγμάτων αὐτὸς ὁ πόλεμος, ἂν ἐπιχειρῶμεν ἂν μέντοι καθώμεθα οἴκοι, λοιδορουμένων ἀκούοντες καὶ αἰτιωμένων ἀλλήλους τῶν λεγόντων, οὐδέποτ' οὐδὲν ἡμῖν οὐ μὴ γένηται τῶν δεόντων. "Οποιοὶ μὲν γάρ ἂν, οἷμαι, μέρος τι τῆς πόλεως συναποσταλῇ, καὶ μὴ πᾶσα, καὶ τὸ τῶν θεῶν εὐμενὲς καὶ τὸ τῆς τύχης συναγωνίζεται. ὅποιοι δ' ἂν στρατηγὸν καὶ φήφισμα κενὸν καὶ τὰς ἀπὸ τοῦ βήματος ἐλπίδας ἐκπέμψητε, οὐδὲν ὑμῖν τῶν δεόντων γίγνεται, ἀλλ' οἱ μὲν ἐχθροὶ καταγελῶσιν, οἱ δ' ἐ σύμμαχοι τεθνᾶσι τῷ δέει τοὺς τοιούτους ἀποστόλους. Οὐ γάρ ἐστιν, οὐκ ἐστιν ἓνα ἄνδρα δυνηθῆναι ποτε ταῦθ' ὑμῖν πρᾶξαι πάνθ' ὅσα βούλεσθε· ὑποσχέσθαι μέντοι καὶ φῆσαι καὶ τὸν δεῖνα αἰτιάσασθαι καὶ τὸν δεῖνα ἔστιν. Τὰ δὲ πράγματα ἐκ τούτων ἀπόλωλεν· ὅταν γάρ ἡγῆται μὲν ὁ στρατηγὸς ἀθλίων ἀπομίσθων ξένων, οἱ δ' ὑπὲρ ὧν ἂν ἐκεῖνος πράξῃ πρὸς ὑμᾶς ψευδόμενοι ῥαδίως ἐνθάδ' ὦσιν, ὑμεῖς δ' ἐξ ὧν ἂν ἀκούσητε ὁ τι ἂν τύχητε ψηφίζησθε, τί καὶ χρὴ προσδοκᾶν.

1. Parse ἐμβησόμεθα, ἔξιμεν, πλευσόμεθα, ἤρετο, προσορμούμεθα, εὐρήσει, καθώμεθα, λοιδορουμένων, γένηται, συναποσταλῇ, ἐκπέμψητε, καταγελῶσιν, τεθνᾶσι, ἔστιν, δυνηθῆναι, πρᾶξαι, ὑποσχέσθαι, φῆσαι, τὸν δεῖνα, ἀπόλωλεν, ἡγῆται, ψευδόμενοι, τύχητε, προσδοκᾶν.
2. Give the etymology of σαθρὸς, φήφισμα, βῆμα, προσδοκάω.
3. ἐκείνου, ἡμῖν (after οὐδέν), θεῶν, ξένων. Explain the government of these.
4. Distinguish between ἡ τύχη, and τὸ τῆς τύχης—τί χρὴ προσδοκᾶν and τί καὶ χρὴ προσδοκᾶν.
5. ἐμβησόμεθα. What is its object ?
6. νῦν—ὧ ἄνδρες Ἀθηναῖοι. What do you remark as to the position of these ?
7. μὴ πᾶσα. Why not οὐ πᾶσα ?
8. ποῖ προσορμούμεθα. What construction ? Render it fully.

9. φήγισμα ἐλπίδας. To what does the orator refer?
10. οὐ μὴ γένηται—ὅπερ . . . πράξῃ. Explain these constructions.
11. ὦσιν. Why in the Subjunctive?
12. τεθνᾶσι ἀποστόλους. What governs ἀποστόλους? Explain fully this construction.
13. πλεύσομαι, μαχοῦμαι, τελέσομαι. Account for these varied forms of the Future.
14. τυφθείς—τύπτουσι. What was the original form of these? Trace the changes.
15. τρέφω, θρέψω—τρέχω, θρέξομαι—θρίξ, τρίχος. Account for these different forms of the stem letters.
16. By what methods did the Greeks obtain the strengthened form of the root, required to mark *protracted* action.
17. What measures does Demosthenes in this Philippic suggest for thwarting the aggressive policy of Philip?
18. What appears to have been the national character of the Athenians at this time?

GREEK POETRY.

EXAMINER—PROFESSOR MACKERRAS, M.A.

Translate—Eurip, *Alcestis*, vv. 112—141.

ΧΘ. ἀλλ' οὐδὲ ναυκληρίαν
 ἔσθ' ὅποι τις αἶα
 στείλας ἢ Λυκίας
 εἴτ' ἐπὶ τὰς ἀνύδρους
 Ἀμμωνίδας ἔδρας
 δυστάνου παραλῦσαι
 ψυχάν· μορος γὰρ ἀποτομος
 πλάθει· θεῶν δ' ἐπ' ἐσχάραις
 οὐκ ἔχω ἐπὶ τίνα
 μηλοθύτων πορευθῶ.
 μόνος δ' ἄν, εἰ φῶς τόδ' ἦν
 ὀμμασιν δεθορκῶς
 Φοῖβου παῖς, προλιποῖς
 ἤλθεν ἔδρας σκοτίας
 Ἄϊδα τε πύλας· καὶ
 ὀμαθέντας γὰρ ἀνίστη,
 πρὶν αὐτὸν εἶλε διόβολον
 πλᾶκτρον πυρὸς κεραυνίου.
 νῦν δὲ τίν' ἐπὶ βίον
 ἐλπίδα προσδέχωμαι;
 πάντα γὰρ ἤδη τετέλεσται
 βασιλεῦσιν,
 πάντων δὲ θεῶν ἐπὶ βωμοῖς
 αἰμόρραντοι θυσίαι πλήρεις,
 οὐδ' ἔστι κακῶν ἄκος οὐδέν.
 ἀλλ' ἤδ' ὀπαδῶν ἐκ δόμων τις ἔρχεται
 δακρυρροοῦσα· τίνα τύχην ἀκούσομαι;
 πενθεῖν μὲν, εἴ τι δεσπότασι τυγχάνει,
 συγγνωστόν· εἰ δ' ἔτ' ἐστὶν ἔμφυχος γυνή
 εἴτ' οὖν ὄλωλεν εἰδέναι βουλοίμεθ' ἄν.

1. Parse *στείλας*, *παραλῦσαι*, *πλάθει*, *μηλοθύταν*, *πορευθῶ*, *φῶς*, *δέδορκῶς*, *προλιποῦσα*, *Ἄϊδα*, *ὀμαθέντας*, *ἀνίστη*, *εἶλε*, *προσδέχωμαι*, *τετέλεσται*, *δακρυρροοῦσα*, *τυγχάνει*, *ὄλωλεν*, *εἰδέναι*, *βουλοίμεθα*.
2. Give the etymology of *ναυκληρία*, *Λυκία*, *ἀνύδρος*, *μόρος*, *μηλοθύτης*, *μόνος*, *Φοῖβος*, *διόβολος*, *πλᾶκτρον*, *αἰμόρραντος*, *ὀπαδός*, *συγγνωστός*, *οὖν*.

3. ναυκληρίαν, αἶας, βασιλεῦσιν. Explain the government of these.
4. Distinguish between παραλύσαι and παραλῦσαι—βωμός, ἐσχάρα and θυσιαστήριον—πύλη and θύρα—λυπέομαι, πενθέω, θρηγέω and κόπτω.
5. πύλας—βασιλεῦσιν. Why in the Plural?
6. ἐπί (vv. 115.) What do you remark as to its position?
7. ἄν (vv. 122.) What does it modify.
8. ὄμμασιν δεδορκώς. What do you remark?
9. πενθεῖν. What governs it in the Infinitive?
10. οἶν. What is its force, especially in tragic writers?
11. Φοίβου παῖς. Who? Explain the reference to him in vv. 128, 129.
12. Ἀμμωνίδας ἔδρας. Where? For what celebrated?
13. Point out the Protasis and Apodosis in vv. 122—126, and translate these lines so as to express to an English ear the full import conveyed by the original to an Athenian.
14. Name the four places where Apollo was chiefly worshipped. Establish a connection between the names of these and this God.
15. What are the rules of the Porsonian Pause? Point out an instance in this passage.
16. What were the functions of the Chorus? Did the Chorus inculcate any immoral sentiment in one of the odes in this Tragedy? If so—state what this was.
17. λαμβάνω, μανθάνω, τυγχάνω. Account for the difference of nasal in the stem.
18. πρῶσσω, χαρίεσσα, πᾶσα, ἐλάσσω, κορύσσω. What was the original form of these? What law do we deduce from these and similar examples?

SECOND YEAR.

SENIOR MATHEMATICS.

EXAMINER—PROFESSOR WILLIAMSON.

1. Define the *axis* of a circle of the sphere ; the *secondaries* of a great circle.
2. How do degrees of longitude vary in length in different latitudes, the earth being supposed a perfect sphere ?
3. The sides and angles of the polar triangle are the supplements of the angles and sides of the primitive.
4. State the different cases of spherical triangles with the propositions by which each is to be solved.
5. Prove that $\text{Sin. } \frac{1}{2} C = \sqrt{\frac{\text{Sin. } (S-a) \text{ Sin. } (S-b)}{\text{Sin. } a \text{ Sin. } b}}$
6. A quadrantal triangle being given, shew fully how it is to be solved by Napier's rules.
7. Prove that $\text{Tan. } \frac{1}{2} A \text{ Tan. } \frac{1}{2} B = \frac{\text{Sin. } (S-c)}{\text{Sin. } S}$, and apply this formula to solve the triangle, when a side, an adjacent angle, and the sum of the other two sides are given.
9. Write down Napier's analogies, and apply them to shew
 1. The difference of two angles is less than 180° .
 2. $\frac{1}{2}(a+b)$ and $\frac{1}{2}(A+B)$ are always of the same affection.
 3. $(a-b)$ and $(A-B)$ have always the same sign.
9. Find the area of a spherical triangle.
10. How must a right cone be cut by a plane so as to form the several Conic Sections ?

SECOND YEAR.

SENIOR MATHEMATICS.

EXAMINER—PROFESSOR WILLIAMSON.

1. What is the log. of 1 in every system of logarithms? What is the log. of the base in every system? Prove that the log. of a product is equal to the sum of the logarithms of the factors.
2. What is the modulus of the common system of logarithms with reference to the Napierian? What of the Napierian with reference to the common system?
3. In logarithms,
Subtract $\overline{3}.742891$ from 2.483299 .
Multiply $\overline{7}.429683$ by 6.
Divide $\overline{14}.432962$ by 6.
4. Find $6^{3.6}$, given $\log. 2 = .301030$, and $\log. 3 = .477121$.
5. Why must 10 be subtracted from the log. of each of the trigonometrical ratios? How may the log. of the Cosecant be obtained from that of the Sine?
6. If $\sin A = .6$, find $\cos. A$ and $\cot A$.
7. Prove that $\cos A = \sqrt{1 - \sin.^2 A}$.
8. Find the value of A which will satisfy the equation $\tan A = 4 - 3 \cot. A$.
9. The altitude of the Sun is $36^\circ 30'$, what is the length of the shadow of a man 6 feet high, $\tan. 36^\circ 30' = .745$.
10. In a plane triangle prove
 $\cos. a + \cos. b = 2 \cos. \frac{1}{2}(a+b) \cos. \frac{1}{2}(a-b)$.
11. Prove that $\cos. A = \frac{b^2 + c^2 - a^2}{2bc}$
12. State the three cases of plane triangles, with the propositions by which each is to be solved.
How is the area to be found when two angles and a side opposite to one of them are given.
13. In oblique-angled plane triangles—
$$\sin (A - B) = \frac{a^2 - b^2}{c^2} \sin. C$$

14. If R be the radius of the circle circumscribed about a triangle, and r the radius of the inscribed circle

$$r = 4 R \sin. \frac{A}{2} \sin. \frac{B}{2} \sin. \frac{C}{2}$$

15. Find the circular measure of 57° . Also the degrees in the circular measures of $\frac{\pi}{7}$, and $\pi + 1$.

16. Prove De Moivre's theorem for fractional indices.

SECOND YEAR.

LOGIC.

EXAMINER—PROFESSOR MURRAY.

1. (1) Distinguish *singular* and *common terms*. (2) Of the following terms, state which are singular; which, common:—*Triangle, this figure, that circle, weapon, his sword, the greatest dramatist, the true theory*.
2. (1) Name and distinguish the three parts of which every proposition is composed. (2) Point out each of these parts in the following proposition: *He is the true freeman, who is able to control his passions*.
3. (1) What do the symbols, A, E, I, O, severally represent? (2) Give the symbol for each of the following propositions:
 - (a) All men are not poets;
 - (b) No men are perfect;
 - (c) Every man is fallible;
 - (d) Many propositions are not true;
 - (e) Some propositions distribute their predicates;
 - (f) That proposition is self-evident.
4. (1) When are propositions *opposed*? (2) Give, with their names, the opposites of each of the following propositions:
 - (a) All syllogisms contain three terms;
 - (b) Some fallacies contain four terms.
5. Distinguish the several terms and propositions of the following syllogism:

The union of soul and body is incomprehensible;
The union of soul and body is a fact;
Therefore something which is a fact is incomprehensible.
6. (1) Define *mood* and *figure*. (2) Name the mood and the figure of the syllogism in the previous question. (3) Reduce it to the first figure.
7. (1) Name the moods of the second figure. (2) Explain the significant consonants in the names.
8. (1) Explain how a Sorites is analysed into its constituent syllogisms. (2) Analyse the following Sorites:

Cato is virtuous;
The virtuous man pleases God;
He who pleases God will be happy;
Therefore Cato will be happy.

9. Distinguish (1) *logical and non-logical*, (2) *purely logical and semi-logical, fallacies*.
10. State (1) the name of the following fallacy, (2) the class to which it belongs:

An artful man should be distrusted;

This man shows great art:

Therefore he should be distrusted.

11. What fallacy would be implied in reasoning thus:—"The evidence of witness A is not sufficient to prove the prisoner's guilt; nor is that of witness B; nor that of witness C; nor indeed that of any one of the witnesses: therefore the evidence adduced is not sufficient to prove the prisoner's guilt"?

SECOND YEAR.

CHEMISTRY.

EXAMINER—PROFESSOR DUPUIS, M.A., F.B.S.E.

1. Define (1) Atomicity—(2) Atomic weight (3) Molecular weight.
2. (1) Give the laws of combination by volume —(2) Find the sp. wts. of Ammonia, Olefiant gas and vapour of Ether upon the Hydrogen Scale.
3. Explain the chemical changes by which we obtain (1) Oxygen—(2) Carbonic Anhydride (3) Sulphuric Acid—(4) Phosphuretted Hydrogen.
4. Describe water, and give the methods of determining its constitution.
5. Give the constitution of the Atmosphere, stating the uses, and, where you can, the sources of the several ingredients.
6. (1) Explain the phenomenon of combustion and give the sources of light in the candle, the magnesium light, and the Oxyhydrogen light. (2) How are heat and light affected by (a) too little—(b) too much Oxygen?
7. (1) Give the members and common properties of the chlorine group. (2) Describe Hydrochloric Acid, and give a method of obtaining it.
8. Give a list of the Oxyacids of Phosphorus.
9. (1) Describe Arsenic, and “White Arsenic.” (2) Give Reinch’s test for Arsenic.
10. Give general methods of obtaining (1) a Chloride—(2) an Oxide—(3) a Sulphide of a metal.
11. Give the series of changes by which Sodium Chloride is changed to Sodium Carbonate.
12. Describe Potassium Nitrate, stating how it is formed and for what it is used.
13. Describe the Calcium group, giving the mineral sources of the members.
14. Distinguish carefully between crown and flint glass.

15. (1) Describe the Copper group. (2) What peculiarity in color do we find in the Mercuric Compounds? Give examples.
16. Give the law of even numbers, and thence show that a monatomic radical cannot be a stable compound.
17. Give a list of the names and formulæ for the first five monatomic alcohol radicals.
18. Describe Chloroform, stating how it is obtained.
19. How do we obtain (1) Ether—(2) Potassium Cyanide—(3) Prussian Blue?
20. How do the following reagents affect the Starch Group :
(1) Sulphuric Acid—(2) Nitric Acid—(3) Malt?
21. What are :—(1) "Potash," (9) Lunar Caustic,
 (2) Glauber Salt, (10) Vinegar,
 (3) Epsom Salt, (11) Sugar of Lead,
 (4) Alum, (12) Salt of Sorrel,
 (5) Red Lead, (13) Rochelle Salt,
 (6) Chrome Yellow, (14) Gun Cotton,
 (7) Scheele's Green, (15) Fousel Oil?
 (8) Red precipitate,

SECOND YEAR.

ENGLISH LITERATURE.

EXAMINER—PROFESSOR FERGUSON.

1. Mention the principal Anglo-Saxon works which have been preserved.
2. Name the three chief works of the Semi-Saxon period.
3. Give a short outline of Chaucer's life.
4. What was the literary character of Henry VIII. reign ?
5. What were the mystery plays, and what was their origin ?
6. What were the Unities, and in what countries were the Unities and the Romantic Drama respectively observed ?
7. What was the opinion of the French critics on Shakespeare, and what English authors adopted their opinion ?
9. Classify Shakespeare's plays according to their dates, and state the distinguishing features of the classes.
10. Mention some of Shakespeare's most distinguished contemporaries.
11. Name the theological writers of the Civil war and Commonwealth.
12. Distinguish the three periods of Milton's literary life, and the works which belong to them respectively.
13. Mention the principal writers of the New Drama.
14. Name the Novelists of first half of 18th century and their works.

THIRD YEAR.

JUNIOR NATURAL PHILOSOPHY.

EXAMINER—PROFESSOR WILLIAMSON.

1. Where is the centre of gravity of a triangle, of a pyramid, of a cone, of a segment of a sphere?
2. What is the *line of direction* of gravity? What is necessary in order that a body may not fall? Why cannot a man balance himself on one foot when the forepart of it leans against a vertical wall?
3. What is *instantaneous*? *stable* equilibrium? Why does the centre of gravity always tend to occupy the lowest possible position?
4. What is necessary to produce equilibrium when two equal, opposite and parallel forces act on a body? When is there equilibrium when various forces in different directions act on a point, or on the centre of gravity of a body? When they act on different points of a body, in which there is a fixed point or axis?
5. What is the *Statical* moment of a force? How ought a cart to be loaded so that there may be no weight on the horse?
6. If 2 equal forces act on a point at angles 120° , 90° , and 60° , what is the ratio of one of the forces to the resultant in each case?
7. Name the kinds of levers to which snuffers, bellows, the helm of a boat, pens, knives, the wings of birds, respectively belong.
8. How do you take into account, in your calculations regarding the equilibrium of the lever, the weight of the arms? What advantage has the bent lever in certain cases? What is the ratio of the power to the weight in a compound lever?
9. To what class of levers may the fixed pulley be assigned? the single moveable pulley? What arrangement of pullies is usually denominated blocks and tackle?
10. To what mechanical power does the *crane* belong? What addition is made in the crane? What purpose is gained by

the conical form and spiral grooves of the fusee of a watch?

11. What is the ratio of the power to the weight in a combination of toothed wheels? What is the ratio of the number of revolutions of the last pinion to the number of revolutions of the first wheel.
12. In wheeled carriages, on a perfectly smooth and level road, where is the fulcrum? What are the moments of the power and resistance respectively?
13. Is there any advantage in the use of the screw besides its ordinary mechanical power? What is an endless screw? Hunter's screw?
14. What curve is formed by the main cables of a suspension bridge? In what compound ratio is the strength of joists? In two joists of the same material and dimensions, one of which is fixed only at one end, and the other fixed at both extremities, what is their relative strength of resistance to a transverse strain?
15. An isosceles triangle whose base is to one its sides as $1:7\frac{1}{2}$ is placed with its base on an inclined plane, and it is found that when the body begins to slide it also begins to roll over. Find the coefficient of friction.

THIRD YEAR.

JUNIOR NATURAL PHILOSOPHY.

EXAMINER—PROFESSOR WILLIAMSON.

1. Define *trajectory* ; *uniform* and *varied*, *accelerated* and *retarded* motion ; *angular velocity*.
2. Prove that when a pendulum oscillates in a small circular arc $t = \pi \sqrt{\frac{l}{g}}$ very nearly. How are the intensity of the force of gravity, and the space passed through in a second by a falling body determined from this expression ?
3. Define *centre of oscillation* ; *centre of percussion*. Why is the latter so called.
4. Why is the Cycloid called the *Brachystochrone* ? How is it described ? What property have the vibrations in all arcs of a pendulum vibrating in such a curve ?
5. What forces must act on a body in order that it may move in a curve ? In central forces how do the areas described by the radius vector vary ? When the central force varies as $\frac{1}{d^2}$, what is the nature of the curve described ? What when the force varies as $\frac{1}{d}$?
6. In circular motion what force counteracts the centrifugal component of the tangential force ? What is its ratio to the centrifugal force ? What is the trajectory of a stone thrown vertically upwards by a person in motion ?
7. If an impulse be given to a body in a direction not passing through the centre of gravity, what is the resulting motion ? How many principal axes of rotation are generally conceived to exist in a body ? What are instantaneous axes ? What are the principal axes in a sphere ? in an Ellipsoid ?
8. Define *moment of inertia* ; *axis of least inertia*. How far from the Earth's centre has the primitive impulse been given in order to its rotation on its axis ?
9. Define a *living* ; a *dead* force. What is the principle known as the *conservation of the motion of the centre of*

gravity? What is the principle known as the *conservation of living forces?*

10. Prove that the Subnormal in the Parabola is a constant quantity.

11. Find the chord of curvature of a parabola passing through the focus.

12. In the Ellipse prove that $y^2 = (1 - e^2) (a^2 - x^2)$.

13. Differentiate $a x^n + 1$, $(a + x^2)^{\frac{1}{n}}$, $\frac{x}{1-x}$, $\frac{x}{yz}$, $\frac{x y^n}{x^2 - y^2}$.

Integrate $\frac{x^2 dx}{(a + b x^3)^2}$, $\frac{dx}{1-x}$

14. Divide a number into two such parts that their product multiplied by the difference of their squares shall be a maximum.

THIRD YEAR.

METAPHYSICS (HAMILTON).

EXAMINER—PROFESSOR MURRAY.

1. Name and distinguish the three divisions of philosophy.
2. Distinguish and illustrate the three classes of mental phenomena.
3. (1) Distinguish *sensation proper* and *perception proper*. (2) In which of the senses does the former, in which does the latter, predominate?
4. What *qualities of body* are percepts proper; what, sensations proper; what, both?
5. (1) What qualities are essential to the very conception of matter? (2) Deduce those qualities from this conception.
6. (1) Of what fact are we conscious in every act of perception? (2) Name and distinguish the different systems which arise, according as this fact is, or is not, accepted in its integrity.
7. (1) What is the real difficulty connected with *retention*? (2) How is that difficulty explained?
8. (1) State the opposite doctrines of *Nominalism* and *Conceptualism*. (2) Show that the controversy between them is due to a verbal confusion.
9. Explain how *analysis*, in one point of view, may mean *synthesis*, in another.
10. (1) Distinguish *positive* and *negative* thought. (2) Name the two conditions of positive thought.
11. State the *Law of the Conditioned* in reference to *time*, (1) as a maximum, (*a*) a parte ante, (*b*) a parte post, (2) as a minimum.
12. Deduce the *Causal Judgment* from the Law of the Conditioned.

THIRD YEAR.

METAPHYSICS (LECTURES).

EXAMINER—PROFESSOR MURRAY.

1. Explain (1) the original meaning, (2) the present philosophical usage, of the terms, *subject* and *object*.
2. (1) Distinguish the *special* and the *general sensations*.
(2) State the subdivisions of each class.
3. Analyse the sensations commonly known as *fresh* and *close* smells.
4. Why cannot a person with one ear recognise the *direction of sounds*?
5. If the axes of the eyes are directed to a point beyond an object, explain, on psychological grounds, why the object (1) appears to recede to that point, and (2) to become larger.
6. Why does a body, when touched by the tip of the tongue, appear larger than when touched by any other part of the organism?
7. Describe the distinctive characteristics of the sensations produced by *rapid* and by *slow muscular exertions* respectively.
8. Distinguish *memory* and *imagination*.
9. (1) Distinguish the *primary* and the *secondary laws of suggestion*. (2) State the primary laws.
10. Explain how *contrasted* objects suggest one another.
11. Explain, by the laws of suggestion, why a classification is more easily remembered when put into a tabular form.
12. (1) State the two distinctive characteristics of the representations which constitute dreams. (2) Explain how they are produced.

THIRD YEAR.

BOTANY.

EXAMINER—PROFESSOR DUPUIS, M.A., F.B.S.E.

1. Distinguish between (1) Organic and Inorganic beings—
(2) animals and plants.
2. Classify and describe the subterranean stems.
3. (1) Describe the leaf and its parts—(2) Give the different
modes of Phyllotaxis.
4. Prove the Physiological law of the flower.
5. Describe (1) a stamen and its parts—(2) an ovary and its
parts.
6. Describe the effects of *cohesion* upon the different whorls
of a flower.
7. Describe (1) a simple living plant cell—(2) its modified
forms.
8. What are the purposes of (1) Vegetable Circulation (2)
Vegetable Respiration?
9. Distinguish between (1) Phænogams and Cryptogams—(2)
Exogens and Endogens—(3) Polypetalæ, Gamopetalæ and
Apetalæ.
10. Define :—Panicke, Torus, Galeate, Pappus, Achlamydeous.

THIRD YEAR.

ZOOLOGY.

EXAMINER—PROFESSOR DUPUIS, M.A., F.B.S.E.

1. Describe the eye (1) in mammals—(2) in flies.
2. Divide the operations of Instinct and show how these differ from those of Intelligence.
3. Name the bones of the extremities and explain the terms *Digitigrade* and *Plantigrade*.
4. Describe the Solid Parts in (1) Insecta—(2) Mollusca.
5. Explain the various modes of crawling.
6. Define *digestion*, and describe the digestive organs of (1) Birds—(2) Ruminants.
7. (1) What are the purposes of a circulation? (2) Explain the circulation in Reptiles.
8. Describe *trachæan* respiration, and state where it is found.
9. State an example of (1) alternate reproduction (2) encysted metamorphosis.
10. Define and classify (1) Mammalia—(2) Batrachia.
11. Describe the orders (1) Pachydermata (2) Raptores—(3) Testudinata—(4) Sturiones.

THIRD YEAR.

FRENCH LANGUAGE.

EXAMINER—PROFESSOR FERGUSON.

1. Mention the six Romance Languages, and the dialects of the French.
2. State the principal causes which led to the elimination of old Latin words, and the adoption of new words in the Romance Languages.
3. Prove that Romance nouns are, with some exceptions, derived from the accusation of Latin nouns.
4. Mention some of the principal dialectical changes in the Romance Languages in their passage from Latin.
5. State what changes have taken place in the gender of Romance nouns.
6. What is the derivation of the French pronouns *on*, *en*, *y*, *notre*, *votre*, *cel*, *cet*?
7. What Latin verbs are used as auxiliaries in the Romance Languages, and what is the derivation of French *être*.
8. Explain the formation of future and imperfect of Romance verbs.
9. Translate Cinna Act II, Sc. I.

N'en deliberons plus, cette pitie l'emporte.
Mon repos m'est bien cher, mais Rome est la plus forte :
Et, quelque grand malheur qui m'en puisse arriver,
Je consens a me perdre afin de la sauver.
Pour ma tranquillite mon cœur en vain soupire :
Cinna, par vos conseils je retiendrai l'empire ;
Mais je le retiendrai pour vous en faire part.
Je vois trop que vos cœurs n'ont point pour moi de fard,
Et que chacun de vous, dans l'avis qu'il me donne,
Regarde seulement l'Etat et ma personne.
Votre amour en tous deux fait ce combat d'esprits,
Et vous allez tous deux en recevoir le prix.
Maxime, je vous fais gouverneur de Sicile ;
Allez donner mes lois a ce terroir fertile :
Songez que c'est pour moi que vous gouvernerez,
Et que je repondrai de ce que vous ferez.
Pour epouse, Cinna, je vous donne Æmilie ;
Vous savez qu'elle tient la place de Julie,
Et que si nos malheurs et la necessite
M'ont fait traiter son pere avec severite,
Mon epargne depuis en sa faveur ouverte
Doit avoir adouci l'aigreur de cette perte.
Voyez-la de ma part, tachez de la gagner :
Vous n'etes point pour elle un homme a dedaigner :
De l'offre de vos vœux elle sera ravie.
Adieu : j'en veux porter la nouvelle a Livie.

10. Parse *retiendrai*, *en puisse arriver*, *doit*.

THIRD AND FOURTH YEARS.

LATIN PROSE.

EXAMINER—PROFESSOR MACKERRAS, M.A.

Translate—Tacitus, Agricola, Cap. X.

Britannia, insularum quas Romana notitia complectitur maxima, spatio ac caelo in orientem Germaniae, in occidentem Hispaniae obtenditur, Gallis in meridiem etiam inspicitur: septemtrionalia ejus, nullis contra terris, vasto atque aperto mari pulsantur. Formam totius Britanniae Livius veterum, Fabius Rusticus recentium eloquentissimi auctores, oblongae scutulae vel bipenni assimilavere. Et est ea facies citra Caledoniam, unde et in universum fama est transgressa. Sed immensum et enorme spatium procurrentium extremo jam litore terrarum velut in cuneum tenuatur. Hanc oram novissimi maris tunc primum Romana classis circumvecta, insulam esse Britanniam affirmavit, ac simul incognitas ad id tempus insulas, quas Orcadas vocant, invenit domuitque. Dispecta est et Thule, quam hactenus nix et hiems abdebat, sed mare pigrum et grave remigantibus perhibent ne ventis quidem proinde attolli: credo, quod rariores terrae montesque, causa ac materia tempestatum, et profunda moles continui maris tardius impellitur. Naturam Oceani atque aestus neque quaerere hujus operis est, ac multi rettulere. Unum addiderim, nusquam latius dominari mare, multum fluminum huc atque illuc ferre, nec litore tenus accrescere aut resorberi, sed influere penitus atque ambire, et jugis etiam ac montibus inseri velut in suo.

1. Parse *complectitur, obtenditur, inspicitur, assimilavere, procurrentium, circumvecta, dispecta, abdebat, remigantibus, attolli, impellitur, dominari, accrescere, resorberi, influere, ambire, inseri.*
2. Give the etymology of *insula, meridiem, septemtrionalis, tenuis, remigo, materia, aestus.*
3. *Germaniae, terris, operis, fluminum, litore.* Explain the government of these.
4. Distinguish between *amplector* and *complector*—*antiquus* and *vetus*.
5. *Rettulere, retulere.* Which is the more correct spelling? Why?
6. *Extremo jam litore.* To what part is reference here made?
7. *Orcades.* What is the modern name?
8. *Thule.* Mention the different views as to what island is meant. To which view do you incline? Give reasons.
9. Draw a map, showing the form and geographical position of Britain according to the ancients.

10. Are the views of Tacitus regarding the Northern Sea correct?
11. Describe the battle between Calgacus and Agricola, and draw a sketch representing the position of both armies at the beginning of the engagement.
12. *When* and *where* was this battle fought?
13. State your views regarding the speeches in this Treatise—regarding the Author's summary of Agricola's character.
14. Where dwelt the *Brigantes*, the *Silures*, the *Boresti*? the *Batavi*, the *Tungri*?
15. *Portus Trutulensis*. Where?
16. What are the chief characteristics of the style of Tacitus?
17. What Figures abound in his writings?
18. Mention some of the Graecisms which he adopts.

GREEK PROSE.

EXAMINER—PROFESSOR MACKERRAS, M.A.

Translate—Demos. Phil. II, 34—37.

φοβοῦμαι δὴ μὴ τῶν πρέσβεων σεσιωπηχότων, ἐφ' οἷς αὐτοῖς συνίστασι δεδωροδοκῆκότες, τοῖς ἐπανορθοῦν τι πειρωμένοις τῶν διὰ τούτους ἀπολωλότων τῇ παρ' ὑμῶν ὀργῇ περιπεσεῖν συμβῆ. ὁρῶ γὰρ ὡς τὰ πολλὰ ἐνίουσ οὐκ εἰς τοὺς αἰτίους, ἀλλ' εἰς τοὺς ὑπὸ χεῖρα μάλιστα τὴν ὀργὴν ἀφιέντας. ἔως οὖν ἔτι μέλλει καὶ συνίσταται τὰ πράγματα καὶ κατακούμεν ἀλλήλων, ἕκαστον ὑμῶν, καί περ ἀκριβῶς εἰδὼτα, ὅμως ἐπαναμνῆσαι βούλομαι τίς ὁ Φωκέας πείσας ὑμᾶς καὶ Πύλας προέσθαι, ὧν καταστάς ἐκείνος κύριος τῆς ἐπὶ τὴν Ἀττικὴν ὁδοῦ καὶ τῆς εἰς Πελοπόννησον κύριος γέγονε, καὶ πεποιήχ' ὑμῖν μὴ περὶ τῶν δικαίων μηδ' ὑπὲρ τῶν ἔξω πραγμάτων εἶναι τὴν βουλὴν, ἀλλ' ὑπὲρ τῶν ἐν τῇ χώρᾳ καὶ τοῦ πρὸς τὴν Ἀττικὴν πολέμου, ὃς λυπήσει μὲν ἕκαστον, ἐπειδὴν παρῇ, γέγονε δ' ἐν ἐκείνῃ ἡμέρᾳ. εἰ γὰρ μὴ παρεκρούσθητε τόθ' ὑμεῖς, οὐδὲν ἂν ἦν τῇ πόλει πρᾶγμα· οὔτε γὰρ ναυσὶ δῆπου κρατήσας εἰς τὴν Ἀττικὴν ἦλθεν ἂν ποτε στόλῳ Φίλιππος, οὔτε πεζῇ βαδίζων ὑπὲρ τὰς Πύλας καὶ Φωκέας, ἀλλ' ἢ τὰ δίκαια ἂν ἐποίει καὶ τὴν εἰρήνην ἄγων ἡσυχίαν εἶχεν, ἢ παραχρῆμ' ἂν ἦν ἐν ὁμοίῳ πολέμῳ δι' ὃν τότε τῆς εἰρήνης ἐπεθύμησεν. ταῦτ' οὖν, ὡς μὲν ὑπομνῆσαι, νῦν ἱκανῶς εἴρηται, ὡς δ' ἂν ἐξετασθεῖη μάλιστ' ἀκριβῶς, μὴ γένοιτο, ὧ πάντες θεοί· οὐδένα γὰρ βουλοίμην ἂν ἔγωγε, οὐδ' εἰ δίκαιός ἐστ' ἀπολωλέναι, μετὰ τοῦ πάντων κινδύνου καὶ τῆς ζημίας δίκην ὑποσχεῖν.

1. Parse πρέσβεων, σεσιωπηχότων, συνίστασι, δεδωροδοκῆκότες, ἐπανορθοῦν, πειρωμένοις, ἀπολωλότων, περιπεσεῖν, συμβῆ, ἀφιέντας, συνίσταται, εἰδὼτα, ἐπαναμνῆσαι, πείσας, προέσθαι, καταστάς, γέγονε, παρῇ, παρεκρούσθητε, ὑπομνῆσαι, εἴρηται, ἐξετασθεῖη, γένοιτο, ἀπολωλέναι, ὑποσχεῖν.
2. δεδωροδοκῆκότες. Whence derived? Why in the Participle? Why the Nominative?
3. πρέσβεων, αὐτοῖς, πειρωμένοις, ἀπολωλότων, πολλὰ, ὑμῖν, εἰρήνης. Explain the government of these.
4. εἰ δίκαιός ἐστ' ἀπολωλέναι. Render this in Latin.
5. What is the force of οὐδέ, used *absolutely*.
6. ἐπὶ τὴν Ἀττικὴν—εἰς Πελοπόννησον.
περὶ τῶν δικαίων—ὑπὲρ τῶν πραγμάτων.
Account for the change of prepositions in each of these cases.

7. ἄν (before ἔγωγε.) What does it modify?
8. εἰ γὰρ μὴ πρᾶγμα. Bring out the full import of this sentence.
9. ἐνίοις. To whom does Demosthenes refer? Why not state this expressly.
10. ἐν ἐκείνῃ τῇ ἡμέρᾳ. To what day does he refer?
11. To what ambassadors does he point in the *first* line of this passage?
12. When and under what circumstances was this Oration delivered?
13. What policy does Demosthenes recommend in this Philippic?
14. What incident regarding the personal habits of Demosthenes does this Oration disclose?
15. Give a concise sketch of the life of the Orator.
16. Describe his style.
17. What were the relations of the several Greek States to one another at this time?
18. Accentuate the following:

οταν ουν μηκεθ' υμιν αμελειν εξουσια γιγνηται των συμβαιν-
οντων, μηδ' ακουηθ' οτι ταυτ εφ' υμας εστιν εμου μηδε του
δεινος αλλ' αυτοι παντες ορατε και ευ ειδητε, οργιλος και
τραχεις υμας εσεσθαι νομζω.

THIRD AND FOURTH YEARS.

GREEK POETRY.

EXAMINER—PROFESSOR MACKERRAS, M.A.

Translate—Soph. Antigone, vv. 582—614.

ΧΟΡΟΣ.

εὐδαίμονες οἷσι κακῶν ἄγευστος αἰὼν.
 οἷς γὰρ ἄν σεισθῇ θεόθεν δόμος, ἄτας
 οὐδὲν ἐλλείπει, γενεᾶς ἐπὶ πλῆθος ἔρπον· 585
 ὅμοιον ὥστε ποντίαις
 οἷδμα δυσπνόοις δταν
 θρήσσαισιν ἔρεβος ὕφαλον ἐπιδράμη πνοαῖς,
 κυλινδρεῖ βυσσόθεν κελαινάν 590
 θῖνα καὶ δυσάνεμον,
 στόνῳ βρέμουσι δ' ἀντιπλήγεις ἀκταί.
 ἀρχαῖα τὰ Λαβδακιδῶν οἴκων ὀρῶμαι
 πῆματα φθιτῶν ἐπὶ πῆμασι πίπτοντ', 595
 οὐδ' ἀπαλλάσσει γενεάν γένος, ἀλλ' ἐρείπει
 θεῶν τις, οὐδ' ἔχει λύσιν.
 ν ν γὰρ ἐσχάτας ὑπὲρ
 ρίζας δ' τέτατο φάος ἐν Οἰδίπου δόμοις, 600
 κατ' αὖ νιν φοινία θεῶν τῶν
 νερτέρων ἀμῆ κόνις,
 λόγου τ' ἄνοια καὶ φρενῶν Ἐρινύς.
 τεάν, Ζεῦ, δύνασιν τίς ἀνδρῶν
 ὑπερβασία κατάσχοι, 605
 ταν οὐθ' ὕπνος αἰρεῖ ποθ' ὁ παντογῆρος
 οὐτ' ἀκάματοι θεῶν
 μῆνες, ἀγήρω δὲ χρόνῳ δυνάστας Ὀλύμπου
 μαρμαρόεσσαν αἰγλαν. 610
 τό τ' ἔπειτα καὶ τὸ μέλλον
 καὶ τό πρὶν ἐπαρκέσει
 νόμος δδ', οὐδὲν ἔρπων
 θνατῶν βίῳτφ πάμπολις ἐκτὸς ἄτας.

1. Parse σεισθῇ, ἐλλείπει, ἔρπον, ἐπιδράμη, κυλινδρεῖ, θῖνα, ἀντιπλήγεις, Λαβδακιδῶν, ἀπαλλάσσει, ἐρείπει, τέτατο, φάος, Οἰδίπου, ἀμῆ, τεάν, κατάσχοι, αἰρεῖ, δυνάστας, ἐπαρκέσει, πάμπολις.
2. Give the etymology of ἄγευστος, ὅμοιος, ὕφαλος, βυσσόθεν, ἀκτή, Οἰδίπου, νερτέρος, ὑπερβασία, παντογῆρος, ἀκάματος.
3. οἷσι, κακῶν, ἄτας, πνοαῖς, οὐδὲν, βίῳτφ. Explain the government of these.

4. τὰ Λαβδακιδῶν οἴκων πῆματα — ἐσχάτας ρίζας ἐν Οἰδίπῳ
δόμοις. Explain these allusions.
5. ἀμῶ. What is the subject? What Figures does the construction here used illustrate?
6. οἷς ἄν σεισθῇ. Explain this construction. Given a sentence containing a Relative, ἄν and a Conjunctive, what is the force of ἄν?
7. ἀτη. Give a full definition of this word.
8. ἐπιθράμη — κατάσχοι. Account for these Moods.
9. χελαινός — πίπτω — ὕπνος. What was the original form of these?
10. ὀρῶμαι. What is the force of the Middle Voice here?
11. μαρμαρόεις. State the components of this word.
12. What is the full import of ver. 611?
13. Point out the Doricisms in this passage.
14. νῦν. To what does this here refer?
Explain this particle.
To what is it equivalent in Latin?
15. What is the purport of this Choral Ode?
16. Give your opinion of its beauties.
17. Where do we find sentiments and imagery similar to those embodied in this Ode?
18. Who formed the Chorus in this Tragedy? Did they fulfil the high functions expected of a Chorus? If not—point out where they were defective.
19. Is this Ζεὺς the same as the one generally sketched by Greek classical writers?
20. Give an outline of the plot of this Drama.

FOURTH YEAR.

SENIOR NATURAL PHILOSOPHY.

EXAMINER—PROFESSOR WILLIAMSON.

1. If an imponderable rod be bent at an angle of 60° so as to have arms 4 and 6 feet long, and these support at their extremities weights of 8 and 10 lbs. respectively, find the position of equilibrium when the rod is suspended from the angle.
2. If from the highest point of a vertical circle a body begins to slide down, at what point will it leave the circle?
3. Define the *centre of pressure*; *centre of buoyancy*; *meta-centre*.
4. How do you find the volume of an irregular body by weighing it, first in air, and then in water? How do you find the specific gravity of a liquid by Nicholson's hydrometer?
5. Why is it important to give the embankments of dams a very gentle inclination? State and prove the general expression for the dip, at any distance from a point on the surface of a canal, below the tangent plane at that point?
6. What is the velocity of air rushing into a vacuum? How is it deduced?
7. Give a simple expression for finding the height of a hill by the barometer, the temperature of the air and mercury at the upper and lower stations being supposed to be 32° Fahr.
8. What is the density of the air after n strokes in the air pump? In the Condenser?
9. If two lights, one 5 feet and the other 7 feet distant from a screen, give equal shadows of an opaque body, what is the ratio of their intensities?
10. How do you find the conjugate foci in a spherical mirror, 1st, when the luminous point is on the principal axis, and 2nd, when it is not? Define the *principal focus*; *optical centre*; *centre of curvature* of a spherical mirror.
11. Does the refraction of light always vary as the density of the medium into which it passes? What is the limit of

the angle of refraction? What the *absolute*; the *relative* index of refraction?

12. What is a *caustic* by reflection? What is a *caustic* by refraction?
13. Find the conjugate foci in a lens, 1st, in terms of its radii of curvature; and 2nd, with relation to its principal focus.
14. What are the properties of the optical centre of a lens?

FOURTH YEAR.

NATURAL PHILOSOPHY.

EXAMINER—PROFESSOR WILLIAMSON.

1. Explain the structure and advantages of Fresnel's lenses for light-houses.
2. Define *compound* or *heterogeneous* light ; simple or homogeneous light.
What is the *mean* index of refraction ? the *mean* deviation ?
3. Is the dispersion of light by prisms and lenses proportional to the deviation ? What is meant by the *irrationality* of dispersion ?
4. What are the general conditions of achromatism in prisms and lenses ?
5. In order that Fraunhofer's lines, and the bright lines in the Spectroscope may be best seen, how must the incident and emergent rays be situated with respect to the faces of the prism ?
6. Is the crystalline lens absolutely necessary to vision ?
7. How do you find the focal distance of spectacles for long and shortsighted persons ? At what distance from the lens of a simple Microscope must an object be placed in order to distinct vision ? Is there any difference between the distance in this case and that in the compound Microscope ?
8. What is the period of the earth's rotation on its axis ? Of its revolution in its orbit ? What is its velocity per second in its Orbit ?
9. What is the cause of the change of the seasons ?
10. Is the earth a homogeneous spheroid ? How are its form and dimensions most accurately determined ?
11. What is the maximum aberration of a fixed star situated in the pole of the Ecliptic ? Explain the necessity of correcting observations for refraction and parallax. How do these corrections vary with the Zenith distance ? How do we infer the vast distance of the fixed stars from the earth ?
12. Define the principal points and planes from which distances are measured in Astronomy.

13. Define the *Right Ascension*, *Declination*, *Longitude*, *Latitude*, *Altitude* and *Azimuth* of a heavenly body?
14. Explain in what circumstances a total, partial or annular Eclipse takes place. Why do not Eclipses occur every month?

FOURTH YEAR.

ETHICS (STEWART).

EXAMINER—PROFESSOR MURRAY.

1. State the characteristics of the *appetites*.
2. When does the *desire of esteem* become stronger than all the other active powers?
3. Point out the forms in which the *desire of power* manifests itself.
4. (1) Define *self-love*. (2) Why is it called a *rational* principle of action? (3) Distinguish it from *selfishness*.
5. Sketch the history of speculation on *the origin of moral notions* from Hobbes, through Cudworth, Locke, and Hutcheson, to Price.
6. State Stewart's doctrine on the origin of these notions.
7. What is the moral influence (1) of *the sense of the ridiculous*, (2) of *taste*?
8. State (1) *Hume's theory of causation*, (2) his objection to the theistic argument, founded on that theory, (3) Stewart's criticism of that theory.
9. State some of the evidences of God's *wisdom and unity*, (1) in the material world, (2) in the relations of man to his external circumstances, (3) in the analogies observable throughout the universe, (4) in the uniformities of the moral world.
10. Show that there is an *a priori* presumption in favour of the *benevolence* of God.
11. (1) Distinguish *moral* and *physical evils*. (2) What evidences are there, that there is a preponderance of physical good over physical evil in the world?
12. Show that the attributes of God lead us to expect a future state.

FOURTH YEAR.

ETHICS (LECTURES).

EXAMINER—PROFESSOR MURRAY.

1. Explain the object of *Ethics*, as indicated by the name.
2. (1) Distinguish *sensations* and *emotions*. (2) Why cannot the emotions be classified, like the sensations, on the ground of their connection with different parts of the organism?
3. Byron speaks of persons who "could not yet separate their *hopes* from *fears*." Explain, from the nature of these emotions, how this condition is possible.
4. (1) Distinguish *wonder* from the emotion produced by *novelty* and that produced by *variety*. (2) To what general principle are all these emotions due?
5. (1) Define *appetite*. (2) Distinguish the *natural* and the *artificial* appetites. (3) Discuss the question, whether the appetites, as *cravings*, are instinctive or not.
6. Explain the origin (1) of the *desire of society*, (2) of the opposite *love of solitude*.
7. State the different theories on the *nature of the moral consciousness*.
8. (1) Why must ethical science explain the *consciousness of moral obligation* as it appears among the most civilized races? (2) Describe this consciousness as it appears among these.
9. (1) To what extent may *the greatest happiness of all concerned* be taken as the supreme characteristic of obligatory actions? (2) Mention other characteristics which such actions present to different minds. (3) Show that these characteristics are all virtually identical.
10. Distinguish the duties of *justice* from those of *benevolence*.
11. (1) Show that *truthfulness* is a duty of justice. (2) In what circumstances is truthfulness not required?
12. (1) Define *forfeiture*. (2) Show how it may originate *servitude*. (3) Distinguish servitude from *slavery*.

FOURTH YEAR.

GEOLOGY.

EXAMINER—PROFESSOR DUPUIS, M.A., F.B.S.E.

1. Define (1) Geology—(2) *Crust* of the Globe—(3) Rock—(4) *Stratum*.
2. (1) Enumerate the Geological Agencies, dividing them into those which level and those which roughen the earth's surface—(2) the operations of the Aqueous Agency.
3. Examine the theories held in regard to the origin of (1) the *Eruptive* rocks—(2) the *Metamorphic* rocks.
4. What are the characteristics of *Sedimentary* rocks?
5. How were Sedimentary rocks consolidated? Give examples.
6. Describe the principal effects of *denudation*.
7. Write a short sketch of the world's development during the *Palæozoic* Age.
8. What are the general characters of (1) the *Jurassic*—(2) the *Cretaceous*?
9. Prove the present *Drift* theory.
10. What is the nature of the *Post Tertiary*?
11. Give the Geological Period of the introduction of:—
 - (1) *Trilobites*—(2) *Producti*—(3) *Mammals*—(4) *Birds*—
 - (5) *Ammonites*—(6) *Exogenous trees*.

FOURTH YEAR.

MINERALOGY.

EXAMINER—PROFESSOR DUPUIS, M.A., F.B.S.E.

1. Define a mineral, and state the practical uses of mineralogy.
2. (1) Illustrate the modes of crystallization—(2) mention the peculiarities of a *crystal*.
3. Classify the fundamental forms.
4. What is (1) a *hemihedral*—(2) a *holohedral* crystal?
5. Define : (1) Dimorphism—(2) Pseudomorphism—(3) Columnar—(4) Botryoidal—(5) Tarnish—(6) Aliaceous.
6. Give (1) the scale of hardness—(2) the actions of minerals under the blowpipe.
7. Describe briefly the minerals containing Iron in large quantities.
8. Describe (1) Quartz—(2) Calc spar, giving their varieties.
9. What are (1) the sources of Gold—(2) its principal adulterations—(3) its differentia—(4) How is its fineness measured?
10. Give the composition and uses of:—(1) Malachite—(2) Graphite (3) Galena—(4) Ruby—(5) Fluor Spar—(6) Barytes.
11. Distinguish between (1) Apatite and Serpentine—(2) Iron Pyrites and Copper Pyrites—(3) the different feldspars—(4) Gypsum and Fluor Spar (5) Barytes and Celestine.

FOURTH YEAR.

HISTORY.

EXAMINER—PROFESSOR FERGUSON.

1. What degree of civilization had been reached by the Greeks and Italians at the time of their separation?; and give the reasons for your answer.
2. Who were the Pelasgians, and what was their relation to the Dorians and Hellenes?
3. What were the principal expenses of the Greek States, and the sources of their revenue?
4. What circumstances gave Athens the supremacy in Greece, and what use did she make of her power?
5. What three cantons composed the early Latin community, and which of these were of pure Latin stock, and which of Sabellian origin, and what traces are there of this tripartite division?
6. Explain the form "Patres et conscripti."
7. What was the origin of the Tribune, what were its powers, and who were the Questors and Aediles?
8. What was the object of the agrarian law of Spurius Cassius?
9. What was the purpose of the appointment of the Decemvirate, and what use did they make of their power?
10. State the principal reasons why the Roman Empire presented so little opposition to the Gothic invaders.
11. Distinguish between allodial lands and benefices in France.
12. What were the results of the Crusades?
13. State the circumstances of the popular movement in France in 14th century, and give the reasons why the States General failed to resist the progress of the French Monarchy to absolutism.
14. What were the circumstances of the quarrel between Henry II. and Thomas A. Becket, and what were its results?
15. What were the circumstances which resulted in the Magna Charta?
16. State briefly the history of the House of Commons in England till the period of the Commonwealth.

SECOND YEAR.

CHEMISTRY.

EXAMINER—PROFESSOR DUPUIS, M.A., F.B.S.Ed.

9. (a) Characterize the Iron Group; (b) Describe the leading modifications of Iron, and show how one is changed to another.
10. Describe (a) Mercury, (b) its Chlorides, (c) its Oxides; giving the processes by which the Chlorides and Oxides are formed.
11. (a) What Silver Salts are employed in Photography? (b) State their differences; (c) Describe silver-printing on paper.
12. (a) State the general differences between Organic and Inorganic Compounds; (b) give the action of Heat—Nitric Acid—upon Organic Compounds.
13. What is (a) an Alcohol, (b) an Ether, (c) an Amine? (d) When are they Monatomic?
14. Show how acids are derived from (a) Monatomic, (b) Diatomic Alcohols; and give examples of such derived acids, and other methods for their formation.
15. State any peculiarities about the Cyanides of Iron. Describe three compounds resulting from such peculiarities.
16. Write Chemical formulæ for—(a) Alum, (b) Copperas, (c) Vermillion, (d) "Carbolic Acid," (e) Sugar of Lead, (f) Aniline, (g) Nitro-Glycerine, (h) Urea, (k) Rochelle Salt.



SECOND YEAR.

CHEMISTRY.

EXAMINER—PROFESSOR DUPUIS, M.A., F.B.S.Ed.

1. Define Specific Weight, and state how you would find the sp. wt. of (a) a solid heavier than water, (b) a liquid, (c) a compound gas.
2. Give practical methods of obtaining (a) Hydrogen, (b) Carbon Dioxide, (c) Chlorine, (d) Hydrogen Sulphide, (e) Sulphur Dioxide, (f) Hydrogen Phosphide, illustrating the Chemical changes by symbols.
3. Give the Constitution of the Atmosphere, and, where possible, the sources and uses of its ingredients.
4. State the prominent properties of (a) Nitrogen Monoxide, (b) Animal Charcoal, (c) Sulphur, (d) Carbon Disulphide, (e) Phosphorus, with any applications depending upon these properties.
5. Give methods for obtaining (a) Metallic Chlorides, (b) Oxides, (c) Sulphides, with a general description of them.
6. (a) When and how can you precipitate a salt? (b) Give a list of the commoner salts thus obtained.
7. Describe (a) Sodium, (b) Magnesium, (c) Aluminum, showing how they are obtained, and giving their uses.
8. Give the Chemical composition, common properties and uses of (a) White Arsenic, (b) "Soda," (c) Nitre, (d) Slaked Lime, (e) Red Lead, (f) Crown Glass.



SECOND YEAR.

ENGLISH LITERATURE.

EXAMINER—PROFESSOR FERGUSON.

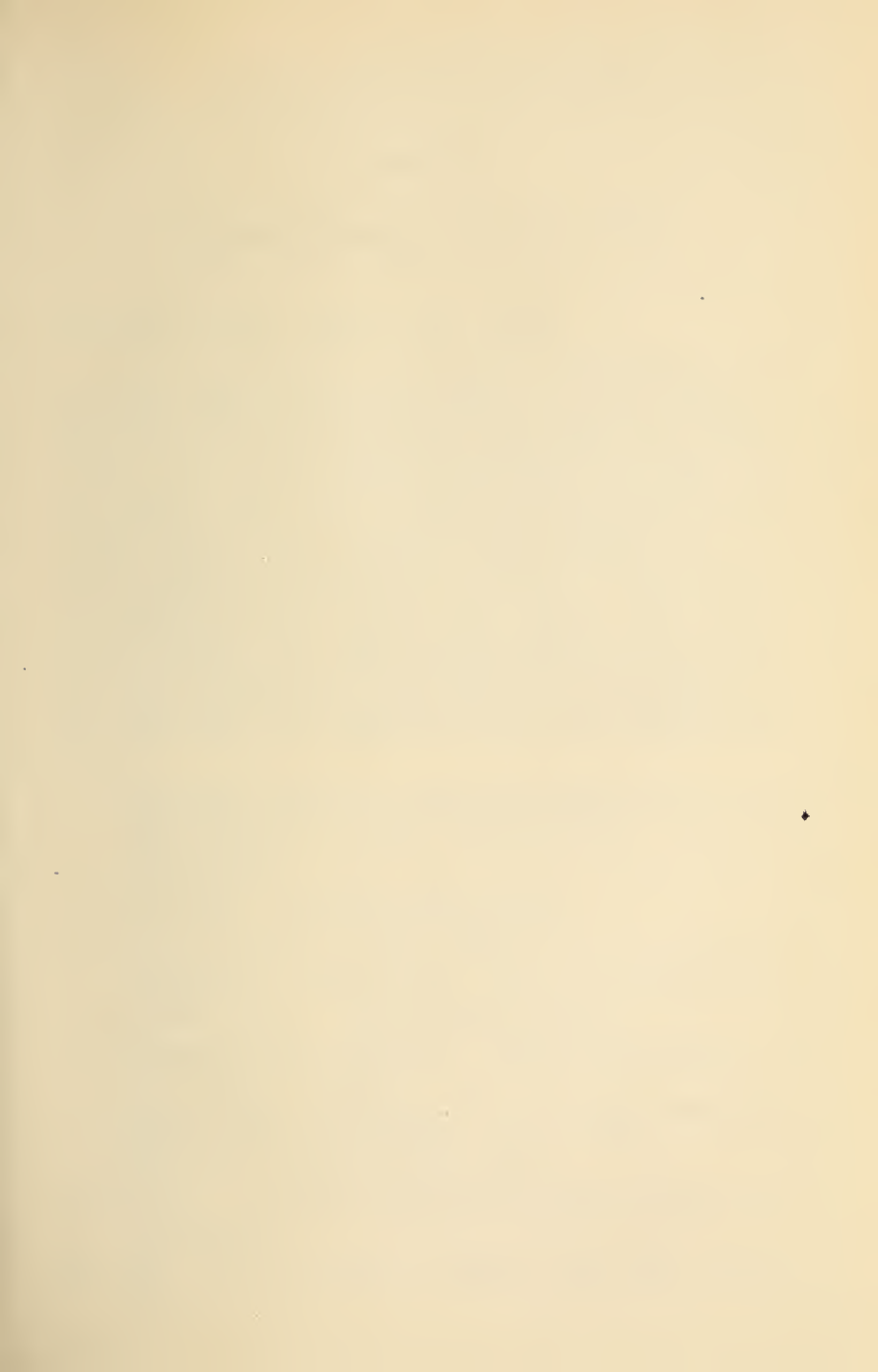
1. Name the principal Anglo-Saxon writings, and tell their subjects.
2. Give an outline of Chaucer's life, and a sketch of the Canterbury Tales.
3. What was the literary character of the 16th century?
4. Trace the early history of the drama in England, till Shakespeare's time.
5. Classify Shakespeare's plays according to their dates, and state the distinguishing features of the classes.
6. Name the principal poets of the Elizabethan period, and state the subject and character of their works.
7. Give a sketch of Bacon's life; name his several writings, and tell their subjects.
8. Distinguish the three periods of Milton's literary life, and name the works which belong to them respectively.
9. Who wrote "Hudibras," what is its object, and under what circumstances was it written?

SECOND YEAR.

LOGIC.

EXAMINER—PROFESSOR WATSON, M.A.

1. "Logic deals with language." (1) Criticise this definition.
(2) State and explain the correct definition.
2. Explain (1) abstraction and (2) generalization.
3. Show that the reasoning is *explicitly*, what the notion is *implicitly*.
4. (1) On what principle is the quantification of the predicate based? (2) Convert the following propositions (a) by Whatley's rules and (b) by Hamilton's method:
 No man is perfect.
 The animals are void of reason.
 Some rational beings are fallible.
5. Give the *opposites* of the following proposition :
 Some passions are not wrong.
6. Explain *extension* and *comprehension* of notions, and show, by an example, their relation to each other.
7. Reduce the following syllogism to the first figure :
 Some syllogisms are not regular ;
 All syllogisms are important ;
 Therefore some important things are not regular.
8. "If E is F, G is H." Give (a) the *invalid* and (b) the *valid* inferences.
9. What are the two theories of induction ?
10. What are the tests of a true conception ?
11. If nature were not *uniform*, would science be possible ?
 If not, why ?





THIRD AND FOURTH YEARS.

LATIN.

EXAMINER—PROFESSOR MACKERRAS, M.A.

Translate—Tacitus, Agricola, cap. XVIII.

XVIII. Hunc Britanniae statum, has bellorum vices media jam aestate transgressus Agricola invenit, cum et milites, velut omissa expeditione, ad securitatem, et hostes ad occasionem verterentur. Ordovicum civitas, haud multo ante adventum ejus, alam in finibus suis agentem prope universam obtriverat: eoque initio erecta provincia et quibus bellum volentibus erat, probare exemplum ac recentis legati animum opperiri, cum Agricola—quamquam transacta aestas, sparsi per provinciam numeri, praesumpta apud militem illius anni quies (tarda et contraria bellum incohatur), et plerisque custodiri suspecta potius videbatur—ire obviam discrimini statuit; contractisque legionum vexillis et modica auxiliorum manu, quia in aequum degredi Ordovices non audebant, ipse ante agmen, quo ceteris par animus simili periculo esset, erexit aciem. Ita petita pace ac dedita insula, clarus ac magnus haberi Agricola, quippe cui ingredienti provinciam, quod tempus alii per ostentationem aut officiorum ambitum transigunt, labor et periculum placuisset. Nec Agricola prosperitate in vanitatem usus, expeditionem aut victoriam vocabat victos continuisse: ne laureatis quidem gesta prosecutus est. Sed ipsa dissimulatione famae famam auxit, aestimantibus quanta futuri spe tam magna tacuisset.

1. Parse *vices*, *Ordovicum*, *obtriverat*, *erecta*, *opperiri*, *transacta*, *incohatur*, *custodiri*, *degredi*, *dedita*, *ingredienti*, *gesta*, *tacuisset*.
2. Derive *bellum*, *securitas*, *ala*, *exemplum*, *aestas*, *quippe*.
3. *Verterentur*. What is its force here?
4. *Tarda*—*plerisque*—*ceteris*—*periculo*—*cui*—*prosperitate*—*expeditionem*—*aestimantibus*. Account for these Cases.
5. *Probare*—*haberi*. What are the subjects?
6. *Custodiri suspecta videbatur*. Is this strictly classic? If not—render it correctly.
7. *Quibus bellum volentibus erat*—*quod tempus transigunt*. Explain these constructions.
8. *Laureatis*. To what does this refer?
9. *Occasio*. Is this as expressive as *καρπός*. If not—state the difference.
10. *Ala*—*legionum vexillis*. Explain fully these military terms.

11. *Victoriam vocabat victos—labor et periculum placuisset.*
What Figures do these illustrate?
12. *Mona.* What is its modern name? Do any traces of the old name still remain?
13. In what year did the transactions described in this chapter occur?
14. Where dwelt the *Ordovices*—the *Iceni*—the *Caledonii*?
15. What peculiar syntactical usages are found in Tacitus?
16. How does he prevent the monotony of the events which he records, especially in his *Annals*, from wearying the reader?
17. What are the chief characteristics of Agricola as a General?
18. Contrast the style of Tacitus with that of Livy.

GREEK PROSE.

EXAMINER—PROFESSOR MACKERRAS, M.A.

Translate—Plato, *Apol. Soc.*, cap. XVIII.

XVIII. Μὴ θορυβεῖτε, ὦ ἄνδρες Ἀθηναῖοι, ἀλλ' ἐμμείνατέ μοι οἷς ἐδεήθην ὑμῶν, μὴ θορυβεῖν ἐφ' οἷς ἂν λέγω, ἀλλ' ἀκούειν· καὶ γάρ, ὡς ἐγὼ οἶμαι, ὀνήσεσθε ἀκούοντες. μέλλω γὰρ οὖν ἅττα ὑμῖν ἐρεῖν καὶ ἄλλα, ἐφ' οἷς ἴσως βοήσεσθε· ἀλλὰ μηδαμῶς ποιεῖτε τοῦτο. εὖ γὰρ ἴστε, ἐὰν ἐμέ ἀποκτείνητε τοιοῦτον ὄντα, οἷον ἐγὼ λέγω, οὐκ ἐμέ μείζω βλάψετε ἢ ὑμᾶς αὐτούς· ἐμέ μὲν γὰρ οὐδὲν ἂν βλάβειεν οὔτε Μέλητος οὔτε Ἄνυτος· οὐδὲ γὰρ ἂν δύναίτο· οὐ γὰρ οἶμαι θεμιτὸν εἶναι ἀμείνωνι ἀνδρὶ ὑπὸ χείρονος βλάπτεσθαι. ἀποκτείνειε μὲντ' ἂν ἴσως ἢ ἐξελάσειεν ἢ ἀτιμώσειεν. ἀλλὰ ταῦτα οὗτος ἴσως οἶεται καὶ ἄλλος τις που μέγαλα κακά, ἐγὼ δ' οὐκ οἶμαι, ἀλλὰ πολὺ μᾶλλον ποιεῖν ἢ οὗτος νυνὶ ποιεῖ, ἄνδρα ἀδίκως ἐπιχειρεῖν ἀποκτινύναι. νῦν οὖν, ὦ ἄνδρες Ἀθηναῖοι, πολλοῦ δέω ἐγὼ ὑπὲρ ἱμαντοῦ ἀπολογεῖσθαι, ὥς τις ἂν οἶοιτο, ἀλλ' ὑπὲρ ὑμῶν, μὴ τι ἐξαμάρτητε περὶ τὴν τοῦ θεοῦ δόσιν ὑμῖν ἐμοῦ καταψηφισάμενοι. ἐὰν γὰρ ἐμέ ἀποκτείνητε, οὐ ῥαδίως ἄλλον τοιοῦτον εὐρήσετε, ἀτεχνῶς, εἰ καὶ γελοιότερον εἰπεῖν, προσκείμενον τῇ πόλει ὑπὸ τοῦ θεοῦ, ὥσπερ ἵππῳ μεγάλῳ μὲν καὶ γενναίῳ, ὑπὸ μεγέθους δὲ νωθεστέρῳ καὶ δεομένῳ ἐγείρεσθαι ὑπὸ μύωπός τινος·

1. Parse *θορυβεῖτε*, *ἐμμείνατε*, *ἐδεήθην*, *ὀνήσεσθε*, *ἅττα*, *ἐρεῖν*, *βοήσεσθε*, *ἴστε*, *μείζω*, *βλάψειν*, *δύναίτο*, *ἀποκτείνειε*, *ἐξελάσειεν*, *ἀτιμώσειεν*, *ἀποκτινύναι*, *δέω*, *οἶοιτο*, *ἐξαμάρτητε*, *μεγέθους*, *ἐγείρεσθαι*.
2. Derive γὰρ, οὖν, θεμιτός, χείρων, νυνί, νῦν, μύωψ.
3. οἷς (ἐδεήθην)—οἷς (ἂν λέγω)—μείζω—πολλοῦ—(δόσιν) ὑμῖν—ἐμοῦ (καταψηφισάμενοι). Account for these Cases.
4. *θορυβεῖτε*—*ἐμμείνατε*. Account for these Tenses.
5. *θεμιτόν*.....*βλάπτεσθαι*. Render this by another construction equally classic.
6. *που*. What is its force here?
7. *πολὺ μᾶλλον*. Supply the ellipsis.
8. *ἄλλος*—*μᾶλλον*—*ἀνδρὶ*. What was the original form of these? Account for the change.
9. How are Prohibitions or Negative Commands expressed in Greek?
10. *ἀτιμία*. What were the various forms of this?

11. Explain the following legal terms, viz. : ὁ φύγων—ὁ διώκων—
ἀντωμοσία—ἀναβιβάσασθαι—γραφὴν γράψασθαί τινα—ἐρήμη
(δίκη).
12. How far may this Treatise be regarded as the actual defence
made by Socrates ?
13. Into what parts is the Apology divided ?
14. What were the counts of the indictment preferred against
Socrates ?
15. What constituted the chief difficulties against which he had
to contend in his defence ?
16. What was the *bearing* of Socrates before his judges ? How
did it affect the final result ?
17. (a) What public offices had he held ?
(b) In what battles did he take part ?
18. ἰσως αν ουν δοξειεν ατοπον ειναι, οτι δη εγω ιδια μεν ταυτα
ξυμβουλευω περιων και πολυπραγμωνω, δημοσια δε ου τολμω
αναβαινων εις το πληθος το υμετερον ξυμβουλευειν τη πολει.
τουτου δε αιτιον εστιν ο υμεις εμου πολλakis ακηκατε πολλachu
λεγοντος, οτι μοι θειον τι και δαιμονιον γιγνεται φωνη, ο δη και
εν τη γραφη επικωμωδων Μελητος εγραψατο. Supply the
proper breathings and accents.

GREEK POETRY.

EXAMINER—PROFESSOR MACKERRAS, M.A.

Translate—Soph. *Antigone*, vv. 249–270.

ΦΥ. οὐκ οἶδ'· ἐκεῖ γὰρ οὔτε του γενῆδος ἦν
 πλήγμ', οὐ δικέλλης ἐκβολή· στύφλος δὲ γῆ 250
 καὶ χέρσος, ἄρρῳξ οὐδ' ἐπημαξευμένη
 τροχοῖσιν, ἀλλ' ἄσημος οὐργάτης τις ἦν,
 ὅπως δ' ὁ πρῶτος ἡμῖν ἡμεροσκόπος
 δείκνυσι, πᾶσι θαῦμα δυσχερὲς παρῆν.
 ὁ μὲν γὰρ ἠφάνιστο, τυμβήρης μὲν οὐ, 255
 λεπτή δ' ἄγος φεύγοντος ὥς ἐπὴν κόνις.
 σημεῖα δ' οὔτε θηρὸς οὔτε του κυνῶν
 ἐλθόντος, οὐ σπάσαντος ἐξεφαίνετο.
 λόγοι δ' ἐν ἀλλήλοισιν ἐρρόθουν κακοί,
 φύλαξ ἐλέγχων φύλακα, κὰν ἐγίγνετο 260
 πληγῇ τελευτῶσ', οὐδ' ὁ κωλύσων παρῆν.
 εἰς γάρ τις ἦν ἕκαστος οὐξειργασμένος,
 κοῦδεὶς ἐναργής, ἀλλ' ἔφευγε πᾶς τὸ μῆ,
 ἦμεν δ' ἔτοιμοι καὶ μύδρους αἶρειν χεροῖν,
 καὶ πῦρ διέρπειν, καὶ θεοὺς ὀρκωμοτεῖν 265
 τὸ μῆτε δρᾶσαι μῆτε τῷ ξυνειδέναι
 τὸ πρᾶγμα βουλευσάντι μῆτ' εἰργασμένῳ.
 τέλος δ' ὅτ' οὐδὲν ἦν ἐρευνῶσιν πλέον,
 λέγει τις εἰς, ὃς πάντας ἐς πέδον κᾶρα
 νεῦσαι φόβῳ προὔτρεψεν. 270

1. Parse γενῆδος, στύφλος, ἐπημαξευμένη, δείκνυσι, ἠφάνιστο, ἐπὴν, του, σπάσαντος, ἐξεφαίνετο, ἐρρόθουν, ἐλέγχων, τελευτῶσα, οὐξειργασμένος, ἔφευγε, ἦμεν, δρᾶσαι, ἐρευνῶσιν, προὔτρεψεν.
2. Derive πλήγμα, δικέλλης, ἄρρῳξ, ἡμεροσκόπος, ὀρκωμοτεῖν.
3. Give Latin words containing the roots of τροχός, δείκνυμι, κόνις, θήρ, κύων, πῦρ, κᾶρα.
4. ὥς. Account for its accent.

5. *φεύγοντος—φύλαξ—τέλος—ἐρευνῶσιν.* Account for these Cases.
6. *ἔφευγε πᾶς τὸ μῆ.* Complete the construction.
7. Explain the allusion in v. 256.
8. To what usage is reference made in vv. 264, 265? Among what other nations did it prevail?
9. Point out an instance of the Porsonian Pause in this passage.
10. Who constituted the Chorus in this tragedy?
11. Did they fulfil their high functions? State concisely the arguments which may be advanced *pro* and *con*.
12. When did Sophocles first enter the lists as a competitor? When was this tragedy first brought out?
13. Give an outline of the plot.
14. When was Sophocles born? When did he die? A biography of him would sketch the history of, what?
15. Name his leading contemporaries, (1) literary, (2) political.
16. What improvements of the Drama are attributed to him?
17. Contrast Sophocles with (1) Æschylus, (2) Euripides.
18. What was the origin of the Greek Drama?

THIRD YEAR.

NATURAL PHILOSOPHY.

EXAMINER—PROFESSOR WILLIAMSON.

1. State the three laws of motion.
2. Explain the terms, *velocity*, *moving force*, *accelerating force*, *momentum*.
3. Prove that, when the force is constant, $s = ft^2$, and $v^2 = 2fs$.
4. Upon a steeple 150 feet high is a spire of 40 feet; at the same instant, that a stone is let fall from the top of the steeple, another is projected vertically upwards from the bottom of it with a velocity sufficient to carry it to the top of the spire, at what point will these meet?
5. The velocity acquired by falling down an arc of a circle is equal to that acquired by falling down its versed sine.
6. Determine the velocities after impact of two imperfectly elastic bodies impinging directly on each other, and thence deduce the velocity after impact of two inelastic bodies.
7. What is the pressure on a groove in a circular arc down which a ball rolls? Explain the action of the *Centrifugal Railway*.
8. Define a *simple*; a *physical* pendulum; the *Centre of Oscillation*.
9. Find the Equation to the path of a projectile.
10. How must a cone be cut by a plane, so that the common section of the plane and the surface of the cone may be a Parabola? an Ellipse? a Hyperbola? State what are the distinguishing properties of these three curves, and give their Equations.
11. Define a *function* of a quantity. Do functions always vary uniformly as the independent variable does?
12. Give the rules for differentiating such functions as x^n ; $\frac{x}{y}$; xy , and differentiate $ax^3 + 2$, xy^2 , $\frac{x}{y}$, $\frac{1}{(a+x^2)^n}$
13. $x+y=a$ and $x^2y^3 = \text{maximum}$, find x and y .
14. Give the expressions for the *subtangent*; the *subnormal*; the *differential of the arc* in terms of the sine, and the *differential of the area* of any curve. From the last find the area of the common parabola.

THIRD YEAR.

NATURAL PHILOSOPHY.

EXAMINER—PROFESSOR WILLIAMSON.

1. What is the moment of a force with regard to a point? to a plane?
2. Resolve a force represented by 20 into two others whose sum is 22, and which contain an angle of 60° .
3. If three forces meet at a point and act in different planes, what line will represent their resultant?
4. If 1, 2, 3, 4 lbs. be placed at equal distances along a line without weight, and 4 feet in length, find the point on which the whole will balance.
5. Where is the centre of gravity of a triangle; of a pyramid; of the surface of a cone?
6. Enumerate the different kinds of levers, and prove, that when a lever is in equilibrium $P:W$ inversely as the perpendiculars from the fulcrum on the directions in which they act.
7. Two weights P and Q are connected with the extremities of a straight lever, of which the arms are as 3 to 5. P acts at an angle of 60° , and Q at an of 45° : find $P:Q$.
8. State the principle of virtual velocities, and prove it in the case of the inclined plane, when the power acts parallel to the plane.
9. State $P:W$ in the 1st kind of Burtons, and show that there will be equilibrium, if the power, weight, and each pulley, are all equally heavy.
10. What are the two conditions of equilibrium in liquids? What is the condition in gases?
11. Give the general expression for the pressure on any surface immersed in a liquid.
12. A rectangle is described about a parabola, and the whole figure is immersed vertically in a liquid, so that the vertex coincides with the level of the liquid, compare the pressures on the parabola and the rectangle.
13. State Boyle and Mariotte's law.
14. State what is meant by the *elastic tension* of gases, and how heat affects it.

THIRD YEAR.

METAPHYSICS (FIRST PAPER).

EXAMINER—PROFESSOR WATSON, M.A.

1. State (1) the *scientific* and (2) the *philosophical* view of the world.
2. Show why the *organic* world is more stable than the *inorganic*.
3. Criticise the Observing Consciousness.
4. (1) What is Hume's view of Causality? (2) How does Kant reply to it.?
5. What objection may be made to the division of Thought into *faculties*?
6. In what sense may it be said that the complete material of thought is contained in Sensation?
7. State and criticise Mill's attempt to construct the external world out of sensation and associations of sensation.
8. How does immediate sensation become *perception*?
9. Show that Representation is an advance beyond Perception.
10. Show that associations of ideas are not properly *laws*.
11. Distinguish between remembrance and imagination.

THIRD YEAR.

METAPHYSICS (SECOND PAPER).

EXAMINER—PROFESSOR WATSON, M.A.

1. What is the general difference between the Greek and the modern State?
2. (1) On what grounds does Grote object to Plato's view of the Sophists? (2) Are his objections valid?
3. State (1) Socrates' *method* and (2) the nature of his *irony*.
4. "All virtue is knowledge." Explain this saying of Socrates.
5. Compare Socrates' "dæmon" with conscience.
6. (1) Sketch Plato's ideal state. (2) Show why he either (a) rejected or (b) limited Art.
7. (1) What did Plato mean by Justice? (2) Is this the meaning now attached to the word?
8. What is the imperfection in Plato's conception of the relation of the individual to the state?
9. State and criticise Aristotle's view of virtue.

THIRD YEAR.

FRENCH LANGUAGE.

EXAMINER—PROFESSOR FERGUSON.

1. State the chief causes which effected the deterioration of the Latin.
2. When did such words as, *compassio*, *eternalis*, *justificare*, *pausare*, come into general use?
3. State the several causes which led to the elimination of old Latin words, and the adoption of new words in the Romance languages.
4. Explain the formation of the future indicative in the Romance languages, and of the imperfect in the French verb.
5. Translate —

Notre dictateur devant les rangs s'avance,
Demande a votre prince un moment de silence ;
Et l'ayant obtenu : "Que faisons-nous, Romains ?
Dit-il, et quel demon nous fait venir aux mains ?
Souffrons que la raison eclaire enfin nos ames.
Nous sommes vos voisins, nos filles sont vos femmes ;
Et l'hymen nous a joints par tant et tant de nœuds
Qu'il est peu de nos fils qui ne soient vos neveux.
Nous ne sommes qu'un sang et qu'un peuple en deux villes ;
Pourquoi nous déchirer par des guerres civiles,
Ou la mort des vaincus affaiblit les vainqueurs,
Et le plus beau triomphe est arrose de pleurs ?
Nos ennemis communs attendent avec joie
Qu'un des partis defeat leur donne l'autre en proie,
Lasse, demi-rompu, vainqueur, mais, pour tout fruit,
Denue d'un secours par lui-meme detruit.
Ils ont assez longtemps joui de nos divorces ;
Contre eux dorenavant joignons toutes nos forces,
Et noyons dans l'oubli ces petits differends
Qui de si bons guerriers font de mauvais parents.
Que si l'ambition de commander aux autres
Fait marcher aujourd'hui vos troupes et les notres,
Pourvu qu'a moins de sang nous voulions l'apaiser,
Elle nous unira, loin de nous diviser.
Nommons des combattants pour la cause commune,
Que chaque peuple aux siens attache sa fortune ;
Et, suivant ce que d'eux ordonnera le sort,
Que le parti plus faible obeisse au plus fort ;
Mais sans indignite pour des guerriers si braves ;
Qu'ils deviennent sujets sans devenir esclaves,
Sans honte, sans tribut, et sans autre rigueur
Que de suivre en tous lieux les drapeaux du vainqueur :
Ainsi nos deux Etats ne feront qu'un empire."

6. Parse *eclaire*, *noyons*, *deviennent*, and explain construction of *dechirer*, *diviser* and *suivre*.

THIRD YEAR.

BOTANY.

EXAMINER—PROFESSOR DUPUIS, M.A., F.B.S.Ed.

1. (a) What is Botany?—(b) How is it Divided?
2. (a) What are subterranean stems? (b) How are they distinguished,—(c) how classified?
3. Describe leaves in regard to (a) their parts, (b) their Phyllotaxis, (c) their uses, and explain why they fall.
4. (a) Describe the normal flower, and (b) state the morphological laws prevailing among flowers.
5. Define (a) Complete—(b) Perfect—(c) Regular—(d) Symmetrical as applied to flowers.
6. Give (a) the causes of deviation from the normal flower, (b) the effects of cohesion.
7. Give (a) the origin,—(b) the parts,—(c) the appendages of the seed.
8. Classify the dehiscent fruits.
9. Give (a) the structure—(b) modified forms—(c) most common contents of cells.
10. Describe fully (a) the structure of the exogenous stem—(b) the differences between *Exogens* and *Endogens*.
11. Divide plants into classes and state how they are further divided.
12. Classify the following plants:—Buttercup—Hollyhock—Pea—Pumpkin—Mullein—Oak—Willow—Pine.

THIRD YEAR.

ZOOLOGY.

EXAMINER—PROFESSOR DUPUIS, M.A., F.B.S.Ed.

1. Classify the functions of animal life and examine whether they are *distinctive* of animals.
2. (a) Describe the single eye;—(b) To what is it reduced in the lower animals?—(c) What is the nictitating membrane and where is it found?
3. State the uses of (a) the muscles;—(b) the bones;—(c) Explain the terms Digitigrade—Plantigrade.
4. Describe the hard parts of (a) Insecta,—(b) Radiata.
5. Describe the means of progressive movement in (a) the Star fish,—(b) the Leech,—(c) the Earthworm,—(d) the Fish.
6. (a) Classify the operations of nutrition;—(b) describe the *apparatus* and (c) give the *kinds* of circulation.
7. Give the different stages in the history of (a) the *Tenia*,—(b) the *Medusa*,—(c) the *Oestrus*,—(d) the *Frog*.
8. Characterize (a) Vertebrata,—(b) Mammalia—(c) Rodentia, and name five common animals with such characters.
9. Characterize the class *Pisces* and divide it into orders.
10. Give the characters of (a) Hymenoptera,—(b) Diptera;—(c) Distinguish between *Insecta* and *Arachnida*.
11. Divide the *Radiata* into classes, giving an example of each.
12. Classify by order, class, subkingdom, the following animals: (a) Wolf,—(b) Sheep,—(c) Hawk,—(d) Chameleon,—(e) Anchovy,—(f) Cricket,—(g) Earthworm.

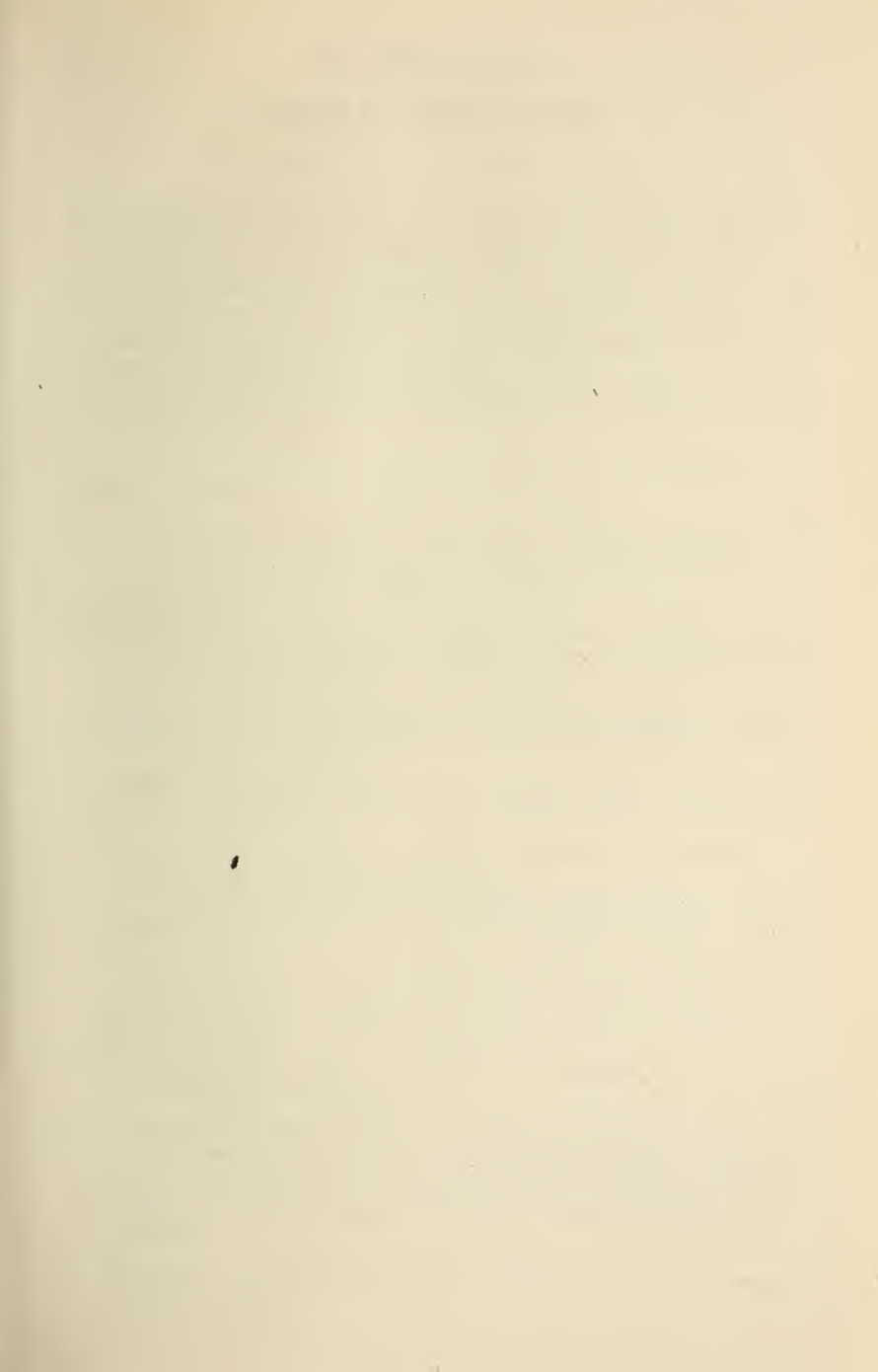
FOURTH YEAR.

NATURAL PHILOSOPHY.

EXAMINER—PROFESSOR WILLIAMSON.

1. What led to the discovery of the velocity of light by Rømer? How was it afterwards confirmed by Bradley?
2. What is the breadth of the waves of violet light? Of red light? How many of the violet and red, respectively, enter the eye in a second?
3. How does the shadow of an object on a screen, when the source of light is a luminous point, differ from that produced by a luminous surface?
4. Why does rock salt become opaque when it is crushed?
5. To what optical instrument is the eye to be referred? What is necessary for distinct vision by the eye? How is it proved that the eye requires adaptation to the different distances of the objects which it views?
6. By what construction would you draw the image of an object reflected from a plane mirror? What is the velocity of the image compared with that of the mirror when the latter moves in a plane parallel to itself?
7. State the uses of the *Goniometer*, of the *Heliostat*, of parabolic mirrors, and Fresnel's Lenses in lighthouses.
8. What ratio determines the critical angle in refraction?
9. Shew that a ray of light, entering a medium of which the index of refraction is 1.414, cannot have a greater deviation than 45° .
10. State the deviation in a triangular prism, 1st, when the angle of incidence is considerable; 2nd, when it is small. How must the ray pass through the prism so that the deviation may be a minimum?
11. Define the *axis*, *principal focus*, *conjugate foci*, *Optical Centre*, *centre of curvature*, *aperture*, *secondary axes*, in Spherical Mirrors and Lenses.
12. Prove that in a Convexo Concave Lens—
$$\frac{1}{d} - \frac{1}{D} = (m-1) \left(\frac{1}{r} - \frac{1}{r'} \right) = \frac{1}{F'}$$
13. Prove that in Spherical Mirrors $FO^2 = FQ \cdot Fq$,
and in Spherical Lenses $FO^2 = F'Q \cdot Fq$,
 F' in the latter case being the principal focus on the other side from q .

14. The first surface of a lens of crown glass ($m=1.53$) is convex, and has a curvature of 3 inches radius ; find the radius of curvature of the other face, and the kind of the lens, when rays coming from a point 10 feet in front of the lens are brought to a focus 2 feet behind it.
15. When is a combination of lenses said to be *achromatic* ? When *aplanatic* ? Whence arose the mistake of Newton in thinking that an achromatic combination was impossible ?
16. Define *simple*, *complementary*, *accidental* or *subjective* colours.
17. State how the magnifying power is determined in the simple microscope ; in the compound microscope ; in refracting telescopes.
18. Explain briefly what is meant by the *interference*, *diffraction*, *double refraction*, *polarization*, of rays of light. What is the cause of the colours of thin films and plates ?



FOURTH YEAR.

NATURAL PHILOSOPHY.

EXAMINER—PROFESSOR WILLIAMSON.

1. If a body weighs 10 lbs. 9 ozs. at one end of a false balance, and 12 lbs. 4 ozs. at the other, what is the real weight?
2. If g be the force of gravity at the surface, what is its amount two miles above the surface of the earth, the earth's radius being taken to be 3956 miles? If the central force varies inversely as the square of the distance, what must be the nature of the curve described by a revolving body?
3. By what property are liquids distinguished from gases?
4. What is meant by the *hydrostatic paradox*?
5. A Cone and Cylinder of the same base and height, each filled with water, are placed on a table, what are the pressures on their bases? What on the table?
6. Upon what principle does the flow in Artesian wells depend? In what ratio are the heights of two different liquids in the branches of a bent tube?
7. State the law of Archimedes with regard to bodies immersed, or floating in liquids.
8. Explain the term *Metacentre*. What is the condition of stable flotation?
9. Given W the weight of a body *in vacuo*, w its weight in water, what is its specific gravity?
The Crown of Hiero, with an equal weight of gold, and an equal weight of silver, were all weighed in water. The Crown was found to lose $\frac{1}{14}$, the gold $\frac{4}{77}$, and the silver $\frac{2}{21}$ of the common weight. In what proportion were the gold and silver mixed in the Crown?
10. Explain briefly what is meant by *Capillary Attraction*, *Endosmose*, and *Exosmose*.
11. A cylindrical vessel filled with fluid rests with its base on a horizontal plane: find the velocity of efflux from an orifice below the level of the fluid, and the position of the orifice, so that the range on the plane may be the greatest possible.
12. What are centrifugal pumps? Explain the action of the Hydraulic Ram.

13. In what direction are the waves of sound propagated, and what is its velocity, in air, per second? Is its velocity the same in all media? A reflecting surface is 560 feet distant, in what time will a word begin to be repeated by the Echo?
14. In three seconds, a stone dropped into a pit, is heard to strike the bottom: how deep is it?
15. Find the density of air in the receiver of an air pump after n strokes of the piston. Find also the density in the receiver of a Condenser, R and B being the capacities of the receivers and barrels.
16. If, in an air pump which has only one barrel, the density after five turns is to the original density as 7:44, compare the capacities of the receiver and barrel.

FOURTH YEAR.

ETHICS (First Paper.)

EXAMINER—PROFESSOR WATSON, M.A.

1. State briefly the three stages of *self-consciousness*, and their relation to each other.
2. Distinguish between *appetite* in man and in the lower animals.
3. State Adam Smith's theory.
4. What is the ethical value of *sympathy* ?
5. (1) What view of *motives* do Libertarians and Necessarians respectively hold ? (2) Which party is *logically* correct ?
6. What is the general imperfection of all Moral-Sense theories ?
7. Is there any objection to be made to Kant's negative morality ?
8. How may a system of positive morality be formed ?
9. (1) What is meant by *Utilitarianism* ? (2) Why is it objectionable ?

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FOURTH YEAR.

ETHICS (Second Paper.)

EXAMINER—PROFESSOR WATSON, M.A.

1. On what notion is the science of Right based?
2. Show briefly how this notion gives rise to (*a*) property, (*b*) contract, (*c*) civil injury, and (*d*) crime.
3. What is the relative value of the *sign* as expressive of the seizure of property?
4. How far are rights alienable?
5. Show that Right is *logically* dependent upon Duty.
6. Distinguish between Conscience and the Practical Reason.
7. What is the ultimate test of Responsibility?
8. (1) What is the ethical value of the *family*? (2) Is the relation of the individual to the family as perfect as his relation to (*a*) the community, and (*b*) the state?

FOURTH YEAR.

HISTORY.

EXAMINER—PROFESSOR FERGUSON.

1. Point out the extent of the Pelasgic element in Greece.
2. State the several circumstances which, notwithstanding the jealousies that separated the Greek States, marked the unity of the Greeks.
3. What charges were made against Pericles as to the use which he had made of the Athenian Supremacy?
4. Describe the Judicial Institutions of Athens.
5. Point out the growth of Military and Naval Armaments in Greece.
6. Give a short sketch of the relations existing between Rome and the Etruscan Power till the fall of the latter.
7. Describe the circumstances of the several secessions to the *Sacra Mons*.
8. Trace the progress of the conquests by Rome within the Italian Peninsula.
9. What were the terms of the Lucinio-Sextian Laws, and their results?
10. State the chief internal causes of the decline of the Roman Empire.
11. Distinguish between allodial lands and benefices in France.
12. Trace the growth of the Royal Judiciary in France.
13. State the occasion of the Council of Clarendon, and its results.
14. State, so far as our information goes, the earlier mode of election to the House of Commons, and when was the first occasion of a pecuniary qualification for electors.
15. State the growth of the idea of Ministerial responsibility in England.

FOURTH YEAR.

MINERALOGY.

EXAMINER—PROFESSOR DUPUIS, M.A., F.B.S.Ed.

1. (*a*) Define a mineral, and (*b*) state the general differences between minerals and organic beings, and hence the difference in our methods of distinguishing them.
2. (*a*) What are the characteristics of crystals?—(*b*) How are they formed?—(*c*) What distinguishes them as fundamental or secondary?—(*d*) Define the *kinds* of secondary crystals.
3. Give (*a*) the kinds of lustre—(*b*) the scale of hardness—(*c*) the odours, stating how they are brought out.
4. How would you test a mineral by heat, and what might it do?
5. (*a*) Describe specular ore—(*b*) Explain the process of smelting it, and mention the principle impurities in the iron so produced.
6. Give the process for reducing (*a*) Copper Pyrites, through the Sulphate—(*b*) Galena, by the German method—(*c*) Antimony Sulphide.
7. Give Pattinson's process of reducing Argentiferous Galena.
8. Describe (*a*) Quartz, and its common varieties—(*b*) Gypsum.
9. State the practical uses of (*a*) Iron Pyrites—(*b*) Malachite—(*c*) Corundum—(*d*) Talc—(*e*) Graphite.

FOURTH YEAR.

GEOLGY.

EXAMINER—PROFESSOR DUPUIS, M.A., F.B.S. EDIN.

1. Contrast the theories accounting for the present Constitution of Nature, and state which is held in Geology.
2. Define (a) *Crust of the Globe*—(b) *Rock*—(c) *Stratum*—(d) *Strike*—(e) *Dyke*—(f) *Fault*—(g) *Conformable*—(h) *Breccia*.
3. (a) State and prove the origin of *Eruptive* rocks,—(b) Classify them.
4. How were *Stratified* rocks (a) formed—(b) Consolidated?—(c) What changes did they afterwards undergo? Prove your statements.
5. (a) What is *Palæontology*?—(b) What does it teach us in regard to the history of life,—(c) in regard to the age of the earth?
6. Characterize (a) the *Devonian*—(b) the *Triassic*—(c) the *Cretaceous*.
7. Divide the *Tertiary*, and explain your division.
8. Examine (a) the cause of the *Drift*,—(b) its consequences.

REPORT OF THE TRUSTEES OF QUEEN'S COLLEGE.

To the Reverend the Synod of the Presbyterian Church of Canada in connection with the Church of Scotland.

The financial position of the College is fully and clearly exposed in the statements of the Treasurer herewith submitted, for the year ending 10th April. From the Endowment Scheme, since the commencement of it in January, 1869, there has been realized \$72,777 45, exclusive of subscriptions and other receipts on account of revenue (\$3,720 85), and disbursements in connection with the Scheme (\$710 92). The results of the effort, together with the rigid economy observed in the ordinary expenditure of the College, are beginning to tell very satisfactorily on the decrease of income caused by the suspension of the Commercial Bank and the discontinuance of the Legislative Grant. The amount of the decrease was \$6,280 per annum. The actual deficiency in revenue reported to the Synod in 1869, was \$3200 19, in 1870, \$3084 76; this year it is only \$1,522 95. The total deficiency is \$7,807 90. Of this sum only \$1,635 36 is shown in Statement No. 5 to have been borrowed from the Endowment Fund, but the whole of it, although for temporary use it has been obtained from other sources, must be regarded as a loan from the Fund, to be restored to capital as soon as the revenue from Endowment shall admit of repayment. Being a debt, it is, in the meantime, an unavoidable cause of delay in completing the realization of the proposed minimum Endowment of \$100,000. It is hoped, however, that the practical effect of reporting it, on the present occasion, will be to stimulate to renewed exertions in behalf of the Scheme.

One of the investments reported in Statement No. 5, is an expenditure of \$5,747 35 on the College Buildings. These are the old buildings, the wings of which have been converted into very commodious and comfortable dwelling houses now occupied by two of the Professors, and the centre part of which is the Principal's house. The annual return upon the outlay will be \$450. The investment is considered to be a good one, while the changes effected by means of it have given the buildings a greatly improved appearance.

In Statement No. 1 is shown an expenditure of \$507 76 upon repairs in the College, that is, the new building formerly leased to the Royal College of Physicians and Surgeons. The repairs consist chiefly of alterations deemed necessary for the accommodation of the classes, library and museum. The Trustees believe that the Institution has now as fine a suite of class rooms for College purposes as there is in the country. The increase of convenience and comfort enjoyed during the past session has been much appreciated, and fully justifies the removal from the old building to the new. Deducting this extra charge, the expenditure for general purposes is the very moderate sum of \$741 04.

The highly competent gentlemen serving the Board as Auditors, after faithfully discharging their duties for the year, report that the Treasurer's Books are kept in an admirable manner, that the funds of the College are most carefully and properly handled, and that the investments on account of the Endowment Fund have been safely and advantageously made.

The full and careful records kept by the Senate for University Examinations, and by the several Professors for monthly written examinations and ordinary daily class work, show that the students as a body make very satisfactory progress from year to year. But there are other means of testing the education given at the College, as to its character and results, more deserving of notice because of their strictly independent application. (Occasionally an alumnus finds his way to a British University, and entering into competition with the ablest students, both gains distinction for himself and brings honour to his *Alma Mater*. Going back but three years, at Edinburgh University, Robert Jardine, who, in January last was appointed President of the Church of Scotland's College at Calcutta, carried alone and with the highest commendation the degree of Doctor of Science, by the excellence of his examinations in Mental Philosophy. Last session at the same seat of learning, Robert Campbell, after a severe contest, won the "Bruce of Grangehill and Falkland Prize" for Logic and Metaphysics, his strongest fellow-competitor being a *first class honour graduate of the University of London*, and the second prize for Political Economy, a Master of Arts gaining the first by a majority of only 9 marks. In this country too, when opportunity offers, competitions appear to lose none of their interest, by a representation from Queen's. At recent Law Examinations in Toronto, for example, among candidates from all quarters, our graduates have taken highly creditable places. In 1869, Duncan Morrison, in passing as a Barrister, stood second in the order of merit, and was exempted from an oral examination. In the same year Francis H. Cryslar competed for the third year scholarship, and though he gained considerably more than the requisite number of marks, he lost the scholarship by a difference of 18 between him and the successful competitor. In November last he competed for the fourth year scholarship and gained it. At his first intermediate examination he was fourth in the order of merit. At the last Barrister and Attorney Examinations James Muir and John F. Bain were the only candidates from Queen's. The latter stood fourth among 13 as Barrister and fifth as Attorney, passing without an oral examination. The former was first among 25 Attorneys, passing without an oral and coming within a very few marks of the maximum. At their intermediate examinations Muir was first and Bain 3rd of 23 candidates. To pass without an oral examination it is necessary to obtain three-fourths of the maximum.)

Leaving these facts to speak for themselves, the Trustees deem it proper to observe that, with the efficient staff of Professors, the first class accommodation, and the varied appliances of which the College is possessed, much more work can be done, without any increase of expense, than is at present performed. It is greatly to be desired that the young men of the country, more especially of the Church, would come forward in larger numbers to take advantage of the benefits which are placed within their reach. All the Trustees can do, apart from the exercise of their influence as individuals, is to make known the position and capabilities of the Institution. The members of the Corporation have much in their power, and their assistance is earnestly solicited.

The attendance at College and the Institutions in affiliation, during the past session, was as follows:—in Arts and Theology 29, of whom 15 have the Ministry in view; in Medicine, (Royal College of Physi-

cians and Surgeons) 35; in Grammar School 81; in ladies' classes 23; making a total of 168 persons receiving instruction in connection with the University. While the Trustees have pleasure in reporting that those who are preparing for the Ministry are all diligent and promising students, they cannot but renew the regrets expressed on former occasions at the number being so far short of the Church's wants. The hope of an increase is reviving, but it becomes the members of Synod to consider seriously the existing disproportion between supply and demand.

The classes for ladies were superintended by three of the Professors, and the subjects taught were English Literature, Logic, Mental Philosophy, and Chemistry. Encouraging results attended the arrangement.

The course of weekly evening lectures on literary and scientific subjects, referred to in last report, was followed, during the past session, by a more extended course. The assemblies which almost always filled the Convocation Hall afforded a gratifying proof of appreciation on the part of the public. The proceeds derived from the sale of tickets were devoted to a somewhat expensive undertaking—the introduction of gas into the Convocation Hall. It has been a pleasing duty to the Trustees to express their gratitude to the Professors for their liberality and the very valuable improvement effected by means of it.

Since last report two liberal benefactions have been received for the benefit of students for the ministry, the one, \$500 from Mrs. Glass, of Sarnia, to form the foundation of a Scholarship in memory of her deceased husband, Henry Glass, Esq.; the other, \$400 from a gentleman in New Brunswick, with this interesting stipulation on the part of the donor, that candidates may belong to any Presbyterian Church in the Dominion.

To all friends who in any way forwarded the Endowment Scheme or made donations to the Museum, Library, Scholarship and Prize Funds, during the past year, the Trustees take this opportunity of offering their grateful acknowledgments.

All which is respectfully submitted, in the name and by the appointment of the Board of Trustees.

JOHN HAMILTON,
Chairman.

Queen's College, 27th April, 1871.

No. 1—STATEMENT OF ORDINARY REVENUE AND EXPENDITURE OF QUEEN'S COLLEGE AT KINGSTON, FOR THE YEAR ENDING 10TH APRIL, 1871.

REVENUE.	EXPENDITURE.
Grant from Colonial Committee of the Church of Scotland \$1460 00	<i>Salaries.</i> The Principal....\$2200 00
Temporalities' Board.... 2000 00	Prof. Williamson 1600 00
Dividends on Bank Stock 2080 00	" Mowat..... 1500 00
Interest on Mortgages, Government Securities, Debentures and Bank deposits.... 3837 55	" Murray..... 1410 00
Fees—Class and Graduation..... 156 00	" Mackerras.. 1310 00
Rent Class Room..... 30 00	" Dupuis ... 1000 00
Contribution from College Senate towards expenses of removal of Library..... 50 00	" Ferguson .. 1400 00
Kingston Observatory—Balance.... 413 30	Registrar & Secy. to Senate..... 50 00
Subscriptions—	Librarian..... 80 00
Canada.....\$680 00	Secy. & Treasurer 400 00
Scotland..... 100 00	Janitor..... 300 00
Interest on subscription to Endowment Fund 169 00	—————11250 00
949 00	Insurance 230 00
\$10975 85	Repairs—College 507 76
Balance, deficiency..... 1522 95	Travelling Exp's 50 90
	Printing..... 106 44
	Advertising..... 20 25
	Law Expenses... 9 60
	Prize books, '69-70 34 42
	Cleaning, White-washing, &c... 24 18
	Fuel..... 152 40
	Postages, Telegrams and sundry small disbursements... 33 14
	Rent of Janitor's dwelling house 60 00
	Diploma cases ... 2 40
	Coal Oil, wicks, &c 2 30
	Water Rent..... 15 01
	————— 1248 80
\$12498 80	\$12498 80

Queen's College, Kingston, 21st April, 1871.

W. IRELAND,
Secretary-Treasurer.

Certified as correct, as per separate Report.

JOHN CREIGHTON, *Auditor.*
JOHN KERR, "

Kingston, 21st April, 1871.

No. 2—STATEMENT OF RECEIPTS AND DISBURSEMENTS ON
ACCOUNT OF QUEEN'S COLLEGE AT KINGSTON, FOR
THE YEAR ENDING 10TH APRIL, 1871.

RECEIPTS.

Balances—Endowment Funds in Merchants' Bank, 10th April, 1870.....	\$4356 23	
General Funds in Merchants' Bank, 10th April, 1870.....	138 40	
		4494 63
Colonial Committee Grant.....	\$1460 00	
Temporalities' Board.....	2000 00	
Bank Dividends—12 months dividend on 260 shares Merchants' Bank Stock at 8 per cent.	2080 00	
Interest—On Mortgages.....	\$ 732 55	
On Bank Deposits.....	591 80	
On Dominion Stock.....	594 00	
On Debentures.....	1035 00	
On City of Montreal Stock.....	637 00	
From Professors, &c.....	430 24	
	\$4020 59	
Less accrued interest on Deben- tures purchased.....	\$183 04	
Interest unpaid.....	311 55	
	494 59	
		3526 00
Fees—Class Registration and Graduation.....	297 00	
Rent—Class Rooms.....	30 00	
Contribution from Senate.....	50 00	
Kingston Observatory.....	500 00	
Scholarships and Prize Essays as per State- ment No. 4.....	1611 36	
Funds for Investment.....	200 00	
Leitch Memorial Funds.....	100 00	
New Chair in Theology Endowment.....	44 73	
Subscriptions to Revenue through Endow- ment Fund—Canada.....	\$680 00	
From Scotland, to be applied towards alterations in Principal's dwelling house.....	100 00	
Interest on subscriptions to Endow- ment Fund.....	169 00	
		949 00
Bursary Endowments—Toronto Ladies' School	41 91	
Kingston “ “	20 29	
		62 20
Rev. Alexander Lewis—Interest on his donation	16 00	
Henry Glass Memorial Scholarship Endowment....	500 00	
Proceeds of Medical Instruments sold.....	12 00	
Endowment Fund Receipts.....	22786 66	
Borrowed from Endowment Funds.....	1635 36	
		37860 31
		\$42354 94

DISBURSEMENTS.

Salaries as per Statement No. 1.....	\$11250 00	
Disbursements as per Statement No. 1...	\$1248 80	
Less unpaid.....	50 00	
	<hr/>	1198 80
		<hr/>
Fees—Paid Treasurer of Library Registration Fees.	116 00	12448 80
Paid Professor of Natural Philosophy. Use of apparatus.....	25 00	
	<hr/>	141 00
Scholarships and Prize Essays as per Statement No. 4		1106 76
Observatory—Chemicals	4 10	
Observer, 6 months salary to 1st Oct. 1870	210 00	
	<hr/>	214 10
Campbell, Mowat & Macdonnell for investment. ..		450 00
Leitch Memorial Funds—Railing round monument.		24 00
Endowment Fund—Travelling expenses....	\$121 70	
Discount on silver.....	30 22	
Bank Agency.....	0 80	
Postages and Telegrams	5 14	
Printing and Stationery	25 00	
Express charges.....	0 90	
Investigating Applica- tion for Loan.....	9 07	
Transferred to Revenue.	949 00	
	<hr/>	1141 83
Township of Brock Debenture \$2500 at 6 per cent discount.	2350 00	
Township of Eldon Debenture. \$2500 at 4½ per cent discount	2387 50	
Deposited with Building Society Toronto	2673 75	
Alterations in College Buildings	5747 35	
Lent College.....	1635 36	
In Merchants' Bank	12034 49	
	<hr/>	27970 28
		<hr/>
		\$42354 94

Queen's College, Kingston, 21st April, 1871.

W. IRELAND,
Secretary-Treasurer.

Certified as correct, as per separate Report.

JOHN CREIGHTON, *Auditor.*
JOHN KERR, "

Kingston, 21st April, 1871.

No. 3—BALANCE SHEET, SHOWING THE ASSETS AND LIABILITIES OF QUEEN'S COLLEGE AT KINGSTON, ON 10TH APRIL, 1871.

Dr

Royal Charter, cost of	\$	3107	37
Class apparatus.....		3633	92
Library—Expenditure on.....		3399	68
Furniture account.....		1429	09
College Premises.....		41740	61
Bank Stock—			
160 shares Merchants' Bank Stock at par, \$16000	00		
100 " " at 7 per cent. prem.	10700	00	
			26700 00
Campbell, Mowat & Macdonnell		450	00
Young Men's Christian Association of St. Andrew's Church.		54	00
Freehold P. Building Society, Toronto.....		2798	30
Canada Dominion Stock, viz. :—			
Leitch Memorial Funds.....	2400	00	
Michie Bequest..	2000	00	
College Funds.....	7900	00	
Prince of Wales Scholarship.....	400	00	
Mowat Scholarship.....	200	00	
			12900 00
Montreal Public Property Stock.....		10010	00
Debentures—County of Frontenac.....	3000	00	
Township of Thorah.....	4000	00	
Township of Caledon	3500	00	
Township of Mono.....	3000	00	
Township of Brock... ..	2500	00	
Township of Eldon.....	2500	00	
			18500 00
Bills Receivable.....		600	00
A. Livingston.....		133	00
Lands—			
100 acres W. $\frac{1}{2}$ 19, 2nd Con. Marmora.....	300	00	
100 " E $\frac{1}{2}$ 21, 11th Con. Belmont	300	00	
			600 00
Mortgages on Real Estate, viz. :—			
A. J. Macdonnell.....	4586	55	
D. McMillan.....	150	00	
George Neilson....	1000	00	
J. McMahon	200	00	
John Morton	400	00	
Samuel Woods, <i>et al</i> , Trustees.....	675	00	
Small & Livingston.	1900	00	
Hugh Ralston, Prince of Wales Scholarship..	400	00	
Thomas Dunn.....	240	00	
Alexander McIsaacs.....	275	00	
Archibald Ferguson.....	6000	00	
			15826 55
Toronto Scholarship Stock, 3 shares M. B. stock..	300	00	
Kingston " " 3 " " "	300	00	
			600 00
Merchants' Bank Endowment Fund Account.....		12034	49
			\$154517 01

CR.

Endowment New Chair in Theology.....	\$ 1163 22
Michie Bequest	2000 00
Henry Glass Memorial Scholarship Endowment..	500 00
Rev. Alexander Lewis.....	432 00
Funds for Investment.....	2496 96
Bursary Endowments.....	2309 75
Students in Arts for Ministry, (Class Fees.).....	180 00
Leitch Memorial Funds.....	2462 03
Scholarships.....	1451 65
Water Works Company.....	50 00
Endowment Fund Account	72777 45
Profit & Loss Account.....	68693 95
	<hr/>
	\$154517 01

Queen's College, Kingston, 21st April, 1871.

W. IRELAND,
Secretary-Treasurer.

Certified as correct, as per separate Report.

JOHN CREIGHTON, *Auditor.*
JOHN KERR, “

Kingston, 21st April, 1871.

No. 4—STATEMENT OF RECEIPTS AND DISBURSEMENTS ON
ACCOUNT OF SCHOLARSHIPS AND PRIZE ESSAYS FOR
THE YEAR ENDING 10TH APRIL, 1871.

RECEIPTS.

Balance on hand 10th April, 1870, per acct.....	\$ 947 05
Dominion Scholarship.....	\$400 00
Cataraqui do.	50 00
Leitch Memorial do. No. 2.....	86 40
Mowat do.	50 00
Prince of Wales do.	40 00
Trustees do.	11 00
Watkins do.	80 00
St. Paul's, Montreal, do. No. 1	60 00
St. Paul's, Montreal, do. No. 2	60 00
Leitch Memorial do. No. 1.....	57 60
Hardy do. No. 1.....	50 00
Synod do. No. 1.....	80 00
St. And'w's, Scotland do.	36 47
Aberdeen University do.	48 56
Toronto Ladies' do.	24 00
Kingston Ladies' do.	24 00
Campbell do.	80 00
Synod do. No. 2.....	80 00
Synod do. No. 3.....	50 00
Colonial Committee Church of Scotland, £50 Stg.....	243 33
	<hr/>
	1611 36
	<hr/>
	\$2558 41

DISBURSEMENTS.

Prize Essays—Paid Principal for Prizes.....	\$ 41 00	
Dominion Scholarship—E. D. McLaren.....	50 00	
Cataraqui do. James Cormack.....	50 00	
Col. Committee do. No. 4 P. S. Livingston... ..	80 00	
Leitch Memorial do. No. 2 J. F. Fraser.....	86 40	
Mowat do. J. M. Kinghorn.....	50 00	
Prince of Wales do. Prizes.....	59 76	
Prince of Wales do. Transferred.....	17 00	
Henry Glass do. Wm. Donald	35 00	
Watkins do. D. McIntyre.....	80 00	
St. Paul's do. No. 1 James J. Craig.....	60 00	
Leitch Memorial do. No. 1 George Gillies.....	57 60	
Hardy do. No. 1 W. A. Lang.....	50 00	
Synod do. No. 1 A. Crawford.....	80 00	
St. Andrew's do. P. C. McNee.....	50 00	
Aberdeen Univ'ty do. M. McGillivray.....	50 00	
Campbell do. John A. Craig.....	80 00	
Synod do. No. 2 A. P. Knight.. ..	80 00	
Synod do. No. 3 R. J. Craig.....	50 00	
	<hr/>	1106 76
Balance.....		1451 65
		<hr/>
		\$2558 41

Queen's College, Kingston, 21st April, 1871.

W. IRELAND,
Secretary-Treasurer.

Certified as correct, as per separate Report.

JOHN CREIGHTON, *Auditor.*
JOHN KERR, “

Kingston, 21st April, 1871.

No. 5—STATEMENT OF QUEEN'S COLLEGE ENDOWMENT
FUND ACCOUNT FOR THE YEAR ENDING 10TH APRIL,
1871.

RECEIPTS.

Received to 10th April, 1870, as per Statement...	\$53505 50	
Less Disbursements to 10th April, 1870, as per Statement	2372 88	
	<hr/>	\$ 51132 62
Received from 10th April, 1870 to 10th April, 1871.....	22786 66	
	<hr/>	\$73919 28

DISBURSEMENTS.

Travelling expenses	\$ 121 70	
Discount on Silver	30 22	
Bank Agency	0 80	
Postages and Telegrams.....	5 14	
Printing and Stationery.....	25 00	
Express charges	0 90	
Investigating Application for Loan.....	9 07	
Transferred to Revenue Account for Sub. and in- terest on Sub.....	949 00	
	<hr/>	1141 83
Balance.		<hr/>
		72777 45

Accounted for as follows:—

City of Montreal, 91 shares at 10 per cent. prem.	\$10010 00	
County of Frontenac Debentures \$3000, at 5 per cent. discount	2850 00	
Township of Thorah Debentures, \$2000 at 8½ per cent. discount	1835 00	
Township of Thorah Debentures, \$2000 at 8 per cent. discount	1840 00	
53 Shares Merchants' Bank Stock at par	5300 00	
100 " " " " at 7 per ct. prem.	10700 00	
Township of Caledon Debentures \$3500 at 5 per cent. discount	3325 00	
Township of Mono Debentures \$3000 at 5 per cent discount	2850 00	
Mortgages—A Ferguson, Montreal	6000 00	
T. Dunn, Camden	240 00	
A. McIsaacs, Mara	399 00	
Bills Receivable—Charles Rogers, Toronto	100 00	
Robert Hay, Toronto	500 00	
Township of Brock Debentures \$2500 at 6 per cent discount	2350 00	
Township of Eldon Debentures \$2500 at 4½ per cent. discount	2387 50	
Permanent F. Building Society, Toronto	2673 75	
Invested in College Buildings	5747 35	
	<hr/>	\$59107 60
Lent College	1635 36	
Cash in Merchants' Bank	12034 49	
	<hr/>	13669 85
		<hr/> \$72777 45

Queen's College, Kingston, 21st April, 1871.

W. IRELAND,
Secretary-Treasurer.

Certified as correct, as per separate Report.

JOHN CREIGHTON, *Auditor.*
JOHN KERR, "

Kingston, 21st April, 1871.

REPORT OF THE GENERAL COMMITTEE ON THE ENDOWMENT OF QUEEN'S COLLEGE.

*To the Reverend the Synod of the Presbyterian Church of Canada
in connection with the Church of Scotland.*

In the course of last summer the following Charges were visited :—Georgetown, Ormstown, Huntingdon, Elgin and Athelstane, Russelltown, Beauharnois, Laprairie, Chatham, Que., Point St. Charles, Melbourne, Sherbrooke, Lancaster, Pittsburgh, Dundas, London, Westminster, Glencoe, Chatham, Ont., Georgina, Tossorontio and Mulmur, Scott and Uxbridge. In their intercourse with the members and adherents of these congregations the Deputation kept steadily in view the main object of their mission, without losing sight of those other important purposes to which reference was made in former reports, and experienced (your Committee rejoice to say) a renewal of that hearty welcome and earnest co-operation which from the first have been so serviceable in lightening the labours connected with the prosecution of the Scheme, and in rendering these labours successful. Taking into account such circumstances as are entitled to consideration, the Charges named have done their part. In the case of most of them the liberality exercised exceeded expectations. The aggregate of the subscriptions obtained in them is \$7,052.04.

By way of reviewing the progress of the Scheme since its commencement in January, 1869, the following statistics are submitted. 73 Charges have been visited. At the dates, in the order of succession, of the reports to the Synod, of which the present one is the third, the total amounts subscribed are \$70,000, \$100,000, and \$107,000—collected \$25,000, \$61,341, and \$82,495.40—number of Scholarships paid, 20, 33, 45, representing respectively \$10,000, \$16,500, and \$22,500, the value of each scholarship being \$500—number of nominations 46, 122, 190, representing respectively \$4,600, \$12,200, and \$19,000, the value of each nomination being \$100. The sum of the collection, namely, \$82,495.40 includes \$4,296.85, contributed to revenue, and therefore spent, and \$714.68 disbursed on account of expenses incurred in conducting the Scheme, leaving \$77,483.87 at the credit of permanent endowment. Of this capital \$70,197.60 has been placed in first-class securities, which yield \$4,717.79 per annum for the use of the College, being within a very small fraction of an average rate of seven per cent.

The decrease of income caused by the suspension of the Commercial Bank and the stoppage of the Government grant, for which it is the first and principal object of the Scheme to provide was \$6,280 per annum. To this should be added \$250, the annual rent received from the Medical College until last year, and say \$500 for class fees, this portion of the revenue having ceased in consequence of the granting of nomination privileges in connection with subscriptions to endowment, making a total decrease of \$7,030. To the income from investments now reported an addition of \$2,312.21, and to the capital an addition of \$33,500, are therefore required, in order to meet the whole deficiency, without making any provision for certain improvements, dependent upon enlarged pecuniary resources, which it is very desirable to introduce as soon as possible. It is necessary to remark that the work of simply restoring the revenue to the position in which it was prior to the suspension of the Commercial Bank will be un-

avoidably delayed by the annual short comings of the past three years. The total deficiency for that period amounts to \$7,807.90. This is included in the sum herein reported as having been collected for permanent capital, and must, therefore, be regarded as a loan from capital, to be gradually repaid after income and expenditure have been equalized. Another cause of delay lies in the fact that of the \$107,000 reported as having been subscribed, it is believed that owing to the death of subscribers and other reasons about \$3,000 cannot be collected. Notwithstanding these causes of delay in the completion of the Scheme your Committee believe that there is abundant reason why the Synod should indulge in sentiments of gratitude and confidence. Immediately after this meeting of Synod the Deputation from the College will proceed with the work intrusted to them, full of hope that the congregations to be visited during the present summer will respond as cheerfully and liberally to their appeal as those which have been already canvassed.

Before the preparation of this report was completed, your Committee had the extreme gratification of learning that the College Treasurer had received a donation of £200 stg. (\$981.08) from the Colonial Committee of the Church of Scotland, with the special sanction of the General Assembly to this appropriation from their funds, and to its application to the current expenses of the College. The value of this seasonable contribution may be appreciated when it is stated that the effect of it will be to prevent the recurrence of a deficiency in the revenue of the College for the present year.

All which is respectfully submitted in the name and behalf of the Committee.

W. SNODGRASS,
Convener.

Toronto, 8th June, 1871.

THE

Royal College of Physicians and Surgeons,

KINGSTON,

IN AFFILIATION WITH

QUEEN'S UNIVERSITY,

CANADA.

Eighteenth Session—1871-72.

KINGSTON:

PRINTED FOR THE COLLEGE AT THE DAILY NEWS OFFICE.

Teaching Staff.

JOHN R. DICKSON, M.D., M.R.C.P.L., M.R.C.S.E., and F.R.C.S.Edin., PRESIDENT,
Professor of Clinical Surgery.

FIFE FOWLER, M.D., L.R.C.S., Edin., REGISTRAR,
Professor of Materia Medica.

HORATIO YATES, M.D.,
Professor of the Principles and Practice of Medicine, and Lecturer on
Clinical Medicine.

MICHAEL LAVELL, M.D.,
Professor of Obstetrics and Diseases of Women and Children.

MICHAEL SULLIVAN, M.D.,
Professor of Surgery and Surgical Anatomy.

OCTAVIUS YATES, M.D.,
Professor of the Institutes of Medicine and Sanitary Science.

JAMES NEISH, M.D.,
Professor of Descriptive and Regional Anatomy.

THOMAS R. DUPUIS, M.D.,
Professor of Botany.

NATHAN F. DUPUIS, M.A., F.B.S. EDIN., (Professor of Chemistry and Natural
History, Queen's University),
Professor of Chemistry and Practical Chemistry.

ALFRED S. OLIVER, M.D.,
Professor of Medical Jurisprudence.

HERBERT J. SAUNDERS, M.D., M.R.C.S.E.,
Demonstrator of Anatomy.

Annual Announcement.

1871-1872.

The School of Medicine at Kingston being incorporated with independent powers and privileges under the designation of the "Royal College of Physicians and Surgeons, Kingston," will commence its eighteenth session in the College Building, Princess Street, on the first Wednesday in October, 1871.

The College is affiliated to Queen's University, wherein the Degree of M. D. may be obtained by its Students.

Certificates of attendance at this College are recognized by the Royal Colleges of Surgeons of London and Edinburgh; and either the Degree of M.D. or the License of the College entitles the holder thereof to all the privileges in Great Britain that are conferred upon the Graduates and Students of any other Colonial College.

The new premises of the College are commodious and convenient. Unequalled facilities are presented for the study of Practical Anatomy, and great advantages for Clinical instruction are afforded at the General Hospital and Hotel Dieu.

As a general rule there are examinations once a week in all the classes.

The fees for the different Classes are payable at the commencement of the Session. A Student who has attended two courses in any Class in the College except the Anatomical Demonstrations, is entitled to free attendance in such Class at any subsequent date.

Course of Instruction and Order of Classes.

President: JOHN R. DICKSON, M.D., M.R.C.P. Lon., M.R.C.S. Eng., and F.R.C.S. Edin.
(Medical Superintendent of Rockwood Asylum and Surgeon to the Penitentiary.)

Registrar: FIFE FOWLER, M.D., L.R.C.S. Edin.

I. Anatomy.

JAMES NEISH, M.D., PROFESSOR.

Lectures daily from 9 to 10 A.M.

CLASS BOOK—Gray's Anatomy.

Fee for the Course (six months), \$12.

Lectures will be illustrated by plates, preparations and demonstrations on the dead body.

II. Institutes of Medicine.

OCTAVIUS YATES, M.D. (Physician to the General Hospital), PROFESSOR.

Lectures daily from 10 to 11.

BOOKS OF REFERENCE—Dalton's Physiology, and Bennett's or Aitken's Pathology
Fee for the Course (six months), \$12.

The Lectures of this Course, which embrace Histology, Physiology, General Pathology, and Sanitary Science, will be illustrated by vivisections, demonstrations with the microscope, also plates, drawings, and specimens from the Museum.

III. Materia Medica, Therapeutics and Pharmacy.

FIFE FOWLER, M.D., L.R.C.S. Edin. (Physician to General Hospital), PROFESSOR.

Lectures daily from 11 to 12 A. M.

CLASS BOOK—Pereira's Materia Medica abridged (Wood's American edition.)

BOOK OF REFERENCE—United States Dispensatory.

The Course will be illustrated by coloured drawings and specimens of medical plants and specimens of the various drugs, chemicals, etc.

IV. Botany.

THOMAS R. DUPUIS, M.D., PROFESSOR.

Lectures twice a week from 12 to 1.

CLASS BOOK—Gray's Structural or Systematic Botany.

Fee for the Course, \$6.

V. Medical Jurisprudence.

ALFRED S. OLIVER, M.D., PROFESSOR.

Lectures on Tuesdays and Fridays from 12 to 1.

BOOK OF REFERENCE—Taylor's Medical Jurisprudence.

Fee for the Course, \$6.

VI. Principles and Practice of Surgery.

MICHAEL SULLIVAN, M.D. (Surgeon to the Hotel Dieu), PROFESSOR.

Lectures daily from 2 to 3 P.M.

BOOKS OF REFERENCE—Miller, Pirrie, Gross, Holmes', Smith's or Druitt's Surgery.

Fee for the Course (six months), \$12.

These Lectures embrace the Principles and Practice of Surgery, and Surgical Anatomy. The Course will be illustrated by plates and models, as well as pathological specimens. The use of instruments and the application of surgical apparatus and appliances will be taught. The chief operations will be performed on the Cadaver before the Class.

VII. Theory and Practice of Medicine.

HORATIO YATES, M.D. (Physician to the General Hospital), PROFESSOR.

Lectures daily from 3 to 4 P.M.

CLASS BOOK—Wood's Practice of Medicine. BOOKS OF REFERENCE—Tanner's, Aitken's, and Flint's Practice of Medicine.

Fee for the Course (six months), \$12.

VIII. Obstetrics and Diseases of Women and Children.

MICHAEL LAVELL, M.D. (Member of the Medical Council of Ontario, Physician to the General Hospital), PROFESSOR.

Lectures daily from 4 to 5 P.M.

BOOKS OF REFERENCE—Ramsbotham's, Churchill's or Tyler Smith's Midwifery, Thomas or Churchill on Diseases of Women, Tanner on Diseases of Children.

Fee for the Course (six months), \$12.

Ample opportunities will be afforded to the Students for studying this important branch practically. The Students will be arranged in classes to attend the Obstetric practice of the Hospital, and Clinical Lectures on the Diseases of Women and Children will be delivered once a week.

IX. Chemistry and Practical Chemistry.

N. F. DUPUIS, M.A. (Professor of Chemistry, Queen's University), PROFESSOR.

Lectures daily from 5 to 6 P.M., illustrated by diagrams, tables, apparatus and preparations. Experiments daily.

BOOKS RECOMMENDED—Fownes' Manual of Chemistry, Roscoe's Elementary Chemistry.

Fee for the Course of Lectures (six months), \$12.

PRACTICAL CHEMISTRY.—A systematic course of testing and separation of bases and acids is gone through, with special processes applicable to Medical Chemistry and Toxicology. Instruction is also given in manipulations, in the use and fitting up of apparatus, and preparation of reagents.

Class meets on Mondays and Thursdays from 10 to 11 A.M.

BOOKS RECOMMENDED—Bowman's or McAdam's Practical Chemistry.

Fee, \$10.

X. Practical Anatomy.

HERBERT J. SAUNDERS, M.D., M.R.C.S. ENG., DEMONSTRATOR.

Daily Demonstrations on the recent subject.

BOOK FOR USE IN DISSECTING ROOM—Ellis's Demonstrations or Wilson's Dissector.

Fee for each Course of Anatomical Demonstrations and use of the Dissecting Room (six months), \$6.

By an Act of Parliament the bodies of convicts dying in the Penitentiary are given for anatomical purposes. This gives to Kingston very great advantages for the study of Practical Anatomy.

THE HOSPITAL.

The Kingston General Hospital may be attended by Students during their whole period of study, by one payment of \$4 at the commencement.

The Hospital has accommodation for 150 beds. The recently erected "Watkins Wing" contains a very large and commodious Clinical Lecture Room and Operating Theatre, so arranged as to afford an opportunity to all Students of simultaneously witnessing the operations.

The Lectures on Clinical Medicine and Clinical Surgery will be delivered in the new Theatre of the Hospital. Fee entitling to attendance on both Courses, \$6.

Prof. DICKSON, Lecturer on Clinical Surgery.

Prof. H. YATES, Lecturer on Clinical Medicine.

Students will also have the privilege of accompanying the Professor of Surgery in his daily visits to the Hotel Dieu Hospital.

The corporation of the Royal College of Physicians and Surgeons of Kingston possesses advantages and facilities for imparting a thorough and practical training in the different branches of Medical Science unsurpassed by any other College in British North America.

REQUISITES FOR GRADUATION.

The Matriculation and Curriculum of this College are identical with all Colleges in Canada, as prescribed by the Medical Council.

The examinations for Matriculants and for the Medical Council will be conducted in the College Buildings by the Rector of the Kingston Grammar School on the first Tuesday and Wednesday of January, April, July and October of every year, and will embrace the following subjects, viz.: *Compulsory*—English Language, including Grammar and Composition; Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; Geometry—First Two Books of Euclid, Latin Translation and Grammar, First Two Books of Cæsar's *De Bello Gallico*, and one of the following optional subjects—Greek, French, German, or Natural Philosophy, including Mechanics, Hydrostatics, Pneumatics.

Graduates and Matriculants in Arts in any University in Her Majesty's dominions are not required to pass the Matriculation Examination. Evidence of having passed a Matriculation Examination in any of the Medical Institutions of Canada prior to July 19, 1869, will be accepted.

The Candidate for the Degree of the University or Diploma of the College must have completed a period of four years' study, and have given regular attendance on full courses of instruction in the following branches of Medical Science for at least three Sessions. In the case of Graduates in Arts or those who have spent a year's pupillage in the office of a Medical Practitioner, a period of three years only will be required.

The Candidate must have given regular attendance on Full Courses of Instruction in the following Departments for the periods stated:

I. Principles and Practice of Surgery.....	} Two Full Courses of six months each.
II. Theory and Practice of Medicine.....	
III. Obstetrics and Diseases of Women and Children.....	
IV. Institutes of Medicine.....	
V. Anatomy.....	
VI. Chemistry.....	
VII. Materia Medica, Therapeutics and Pharmacy...	
VIII. Practical Anatomy.....	} Two Full Courses of three months each.
IX. Clinical Surgery.....	
X. Clinical Medicine.....	

XI. Medical Jurisprudence.....	} One Course of three months.
XII. Practical Chemistry.....	
XIII. Botany.....	} Twelve months.
XIV. Hospital.....	

The above course of study may have been pursued either wholly in this College, or partly here and partly in some other recognized Medical School. In the latter case at least one full session must have been spent in this College, with attendance on at least four of the above six months courses.

Certificates of attendance on Lectures are received from incorporated Medical Schools in the British dominions, and others recognized by the British Universities and licensing Colleges. Other certificates of attendance on Lectures may be admitted at the discretion of the Faculty.

All Students shall present evidence of their having compounded medicine for a period of twelve months, or for two periods of six months each, in the office of a regularly qualified Medical Practitioner. And they shall present evidence of having attended not fewer than six cases of Midwifery.

Every Candidate must deliver, before the 15th February of the year in which he proposes to graduate, to the Registrar of the College, a Declaration under his own hand that he is twenty-one years of age, or that he will be so before the day of graduation, accompanied by a certificate of good moral character, a statement of his medical studies, with proper certificates, and a Thesis, composed by himself and in his own handwriting, to be approved by the Faculty.

Each Candidate is examined both in writing and *vice versa*—first on Chemistry and Toxicology, Anatomy, Institutes of Medicine, Materia Medica and Therapeutics, and Botany—these subjects constituting the PRIMARY EXAMINATION; secondly, on Surgery, Theory and Practice of Medicine, Medical Diagnosis, Medical Jurisprudence, Obstetrics, Clinical Medicine and Clinical Surgery, and Practical Surgery, which are the subjects of the FINAL EXAMINATION.

Students ready to submit to the Primary Examination, that is, to an examination on the first division of these subjects, at the end of their third year, may be admitted to examination at that time. The Final Examination, embracing the second division of subjects, shall not take place until the Candidate has completed his fourth or last Session.

REQUISITES FOR THE FELLOWSHIP.

Before being admitted to the Professional Examination, the Candidate must produce evidence of being a Graduate in Arts, or undergo an examination equivalent thereto, and of having been engaged in the practice of the profession at least five years.

The fee for the Diploma of Licentiate of the College is \$20; for the Degree of M.D., \$30; for the Fellowship of the College, \$50.

Board can be obtained in Kingston at from \$2.50 to \$3 a week.

Any additional information may be obtained on application to the President or Registrar.

Kingston, August, 1871.

Queen's University, Kingston.

THE COLLEGE SENATE.

VERY REV. WILLIAM SNODGRASS, D.D.,
Principal and Primarius Professor of Divinity.

REV. JOHN B. MOWAT, M.A.,
Professor of Oriental Languages, Biblical Criticism, and Church History.

REV. JAMES WILLIAMSON, M.A., LL.D.,
Professor of Mathematics and Natural Philosophy.

REV. JOHN MURRAY,
Professor of Logic, Metaphysics, and Ethics.

REV. JOHN H. MACKERRAS, M.A.,
Professor of Classical Literature.

NATHAN F. DUPUIS, M.A., F.B.S. EDIN.,
Professor of Chemistry and Natural History.

REV. GEORGE D. FERGUSON, B.A.,
Professor of History and English Literature.

Secretary—Professor Mowat.

Lecturers.

PROFESSOR FERGUSON—Modern Languages.

PROFESSOR MURRAY—Principles and Practice of Elocution.

DONALD MACLEAN, Esq., M.D.—Human Physiology.

Registrar—Professor Murray.

Examiner for Matriculation in Medicine—Samuel Woods, Esq., M.A.

SESSION 1871-72.

The Thirtieth Session will begin on the **First Wednesday (4th) of October next**. Matriculation Examinations will commence on the day after.

The Calendar for 1871-72 contains full information on Subjects of Study, Examinations, Graduation, Fees, Scholarships, &c. Copies may be obtained on application to the Registrar.

THE HIGHER EDUCATION OF WOMAN:

AN ADDRESS

Delivered at the Opening of Queen's College, Kingston,
Canada,

SESSION 1871-72,

BY

REV. J. CLARK MURRAY,

Professor of Mental and Moral Philosophy.

KINGSTON,
1871.

The Higher Education of Woman.

At the opening proceeding of Queen's University on Wednesday, the Rev. J. Clark Murray, Professor of Logic and Metaphysics, delivered the following address on the Higher Education of Women.

To any one, who thinks of it for the first time, or who at any time thinks of it seriously, it cannot but be felt as surprising, that all the great public schools and colleges and universities of the civilised world,—that all the other institutes for an advanced intellectual culture, are, with a very few recent exceptions, constituted and managed on the obvious supposition, that their educational advantages shall be enjoyed by the male sex alone. Not that in all, or even in most cases, there is any statutory exclusion of the other sex; for within the last few years, in the face of much ungenerous opposition, some women have established their claim to sit in the class-rooms of several colleges. The fact, to which reference is made, in the constitution and management of nearly all our great academical establishments, is more forcibly shown in the circumstance, that women are rather ignored than explicitly excluded. It is impossible to account for this circumstance otherwise than by supposing, that the founders and legislators of these establishments never contemplated the possibility of women requiring or seeking more than a merely elementary education. Familiarised as we have become in recent years with the nobler ideas of woman's mission, which we owe to the modern vindicators of her rights, we find it difficult to realise that those, who were liberal enough to make arrangements for superior culture, should have implicitly resolved to keep the female mind beyond

the reach of its elevating power. But it must be remembered, that the importance of any education, for the male sex itself, has been but slowly discovered, even in civilised countries ; and those, who have watched the progress of legislation on the subject in England, must have been astonished to observe how long a national system of education has been rendered impossible by men, who choose rather to let children go uneducated, than to give up a pet theory on the kind of religious doctrines which should be instilled into children's minds. Moreover, there is an obvious reason, why woman has not been considered in past arrangements for higher education ; and that reason is to be found in the limited range of duties, to which she has hitherto been generally confined in the organisation of human society. It is quite evident that, if men had assigned to her a sphere of life which obviously required a higher education to fit her for it, the means of obtaining such an education would have been provided for her ; and it must therefore be inferred, that the sphere, actually assigned to her, is one for which a higher education has been deemed to be, if not absolutely disqualifying, at least altogether unnecessary.

Now, there are two points on which objection may be taken to this exclusion of women from our systems of higher education. (1) The limitation imposed on the range of female occupations conflicts with the natural rights of every human being ; and (2) a superior education is neither disqualifying nor indeed unnecessary even for that limited range of occupations.

I.—The restriction of women to the sphere of life, within which our social usages rigidly confine them at present, is without foundation in natural justice ; and consequently their exclusion from the means of superior education, on the ground that such education is not required for their sphere, is unjustifiable. I know that, in entering on this subject, I tread upon a path, in which it is extremely difficult to avoid running

against the foolish prejudices of the thoughtless, and even the cherished convictions of some who are by no means thoughtless, but who dread the effect of any great social change. It is possible, however, to show that the most important of the rights, at present claimed for women, are among those palpable demands of justice which cannot be refused except on the principle of opposing all progress; and it follows, therefore, that these rights are at present ignored rather from want of thought about them than from any denial of their justice. One thing at least is certain, that there is a very wide-spread discontent with the position to which woman has been hitherto restricted,—that this discontent has been of late spreading more widely every year. Any one, who has been observing the current of thought on this question, must have been at times surprised to hear, —often in quarters where he may least of all have expected it,—a voice which may have been timid at its first utterances, but which, on the slightest encouragement, became fearless, unequivocal, earnest, in its demand for some reform. There is probably no great social question, on which the opinions of men have advanced with the same astonishing rapidity, as on the question regarding the position which women should occupy in society. A few years ago the movement in favour of woman's rights was generally talked of in ridicule, or at least with no more respectful feeling than pity, as one of the unwholesome excrescences protruding on the surface of communities, which are stirred into an abnormal ferment by the diseases incident to a youthful state of society or to a period of revolution. Even yet, it is true, there are some, habituated to treat everything with levity, who affect to consider the claims of women sufficiently refuted by being simply pooh-poohed; while our comic papers endeavour to abuse our judgments by representing the profound revolution, which is elevating woman to social and legal equality with man,

as merely an exchange of the female for the male costume. Still no one can now dare, even if he felt inclined, on occasions when serious argument is required, to dismiss the question with the stale jests with which it was formerly set aside. For all thoughtful men it is becoming one of the most earnest problems of modern society, whether the demands of the highest Christian civilisation are satisfied by the social position which has been hitherto assigned to women.

There is still, however, a great amount of confusion in the minds of most persons with regard to the precise nature of the claims which are being advanced in favour of women. There is one special misapprehension, which rises perhaps naturally in any one's mind when the subject is first brought before his attention, and which is frequently fostered by the hasty effusions of periodical writers, who are often forced to write on a public question before they have obtained any deeper insight into its bearings than that which is derived from a first impression, but this misapprehension so ludicrously reverses the nature of the reform demanded, that it must be removed, before that reform can be seen to claim our support. Those, then, who wish to understand this question, must at once rid their minds of the supposition, that the advocates of woman's rights claim for her a right to neglect her family duties,—a right to leave the varied arrangements of her household to be attended to as best they may, in order that she may enter the public career of a politician or engage in the practice of some profession. If any movement tended to make a wife less faithful to the trust reposed in her by her husband, to make a mother less anxious to promote the true welfare of her children, to make the mistress of a house less scrupulous in her management of it with a view to the comfort of all its inmates, the most unmitigated opponents of such a movement would be the advocates of woman's rights. They demand a recognition not only of woman's rights, but per-

haps more truly of her duties ; they claim, for every woman, high and low, matron and maiden, a right to be something more than a mere ornament of human life,—a right to have, like every man, specific duties in the industrial arrangements of society. Nothing, therefore, could be so contradictory of such a claim, as a demand that women should be allowed to neglect their household duties ; or indeed any other duties which they may reasonably be called upon to perform : and no one has denounced, more strongly than the greatest living advocate of woman's rights, the idleness which ladies of wealth often purchase at the cost of enormous waste by surrendering their proper work into the hands of a hired housekeeper.

But if the movement spoken of does not seek to withdraw women from the work of their households, the question will naturally be asked, what is the object at which it aims ? It endeavours to accomplish a reform in the same direction in which every previous improvement in the relation of the sexes has proceeded,—towards the elevation of woman from a state of real or virtual slavery to man. What is now required is that this tendency of civilization shall be completed by at last according to women perfect equality with men in reference to social position and legal rights. The conscience of Christendom undoubtedly revolts against any explicit subjection of the one sex to the other ; and consequently it is only necessary to point out the inequality in the privileges accorded to the two sexes, in order to prove the rightfulness of the demand for some reform. Now, there are various ways in which this subject may be approached, as there are various aspects in which this inequality of rights is exhibited. The point of view from which the question will be examined at present, is one from which the necessity of some concession to women is peculiarly clear.

Let us start from the most fundamental rights of humanity, and we shall find at once a glaring discrepancy between these and the position which is assigned to women. The rights which are most fundamental are those which belong to every human being as a

morally accountable person, and which are therefore inalienable, except by his ceasing to be such. Among these rights a first place must be assigned to the right of physical existence, and therefore to the means by which that existence is maintained. This right is most fundamental, for without its recognition all the other rights of mankind are implicitly disregarded. Consider, then, what this right implies. It does not, indeed, imply that any one may waste his powers in idleness, or injure society by that evil-doing, to which idleness too naturally leads, and yet claim from society that support which nature yields only to industry. But it does imply that no one shall be debarred by any usages or regulations of society from practising an industrial occupation, by which the means of subsistence may be obtained, as long as such occupation does not conflict with the rights of others. Now, what is the case with women in reference to this right? In general, every young man is brought up with the view of being able to support himself by his own exertions. There are also certain classes of young women, whose parents are not in circumstances to support them till they are married, if married they ever be: and fortunately these are brought up to support themselves in a style not disproportioned to that which they have been used to in their father's house; so that, even if they remain unmarried, their father's insolvency or disability or death does not take away their means of support. But how does modern society insist on bringing up the girl, whose father expects to be able to support her till she is married or perhaps even as long as she lives? It is not too strong a statement to say that there is scarcely any precaution more scrupulously observed in her training, than to prevent her from cherishing the idea, that she will ever be able, by the exercise of her "accomplishments," to provide for her own support. Her brother, gifted perhaps with greatly inferior abilities, is taught to look forward with confidence to an income of several hundred or even of several thousand pounds a year: she comes to years of reflection, only to be startled by the discovery, that, if thrown upon her own resources, she could with difficulty procure an income of as many shillings. For how many a woman does it

thus become a torturing alternative, that she shall surrender herself, under the symbol of a love which she does not feel, to one who will provide for her support, or that she shall struggle to support herself without the luxuries,—without even the comforts, of her earlier life, by some kind of sadly unremitting and sadly unremunerative toil? It would be too painful to sketch in detail the physical sufferings, the moral and social evils, which stream from this abundant source ; but by those, who have inquired into these results, it must be felt that the enlightened conscience of the Christian community cannot long be satisfied with this state of affairs. The growth of a civilising Christian sentiment, spreading into every region of our social existence, must give up this unmanly advantage which is taken by the stronger in the race of life.

To disseminate more widely the nobler sentiment which must sweep away this wrong in our social system, it may be useful to trace the wrong to its origin ; for the first step towards the removal of an evil must be to reach its cause. It is not always possible, indeed, to discover the influences by which every fact of social life is originated, for they are often so intricate as to baffle our analysis, and so subtle as to escape our observation. I do not, therefore, pretend to point out all the causes which may have been at work in assigning to woman the position she occupies in modern society. But there are two of these causes which it seems to me specially important to notice,—the one of them having its root in the generous gallantry of man,—the other in the unconscious tendencies of his selfishness.

1. It is not, then, wholly to unjust motives that the subordinate social position of women is due ; it has been assigned to her partly from a misdirected sentiment which is essentially generous. To understand this we must observe the meaning of the distinction between poverty and wealth. When a man requires to labour for his *daily* bread, in the most literal sense of the expression, he is said to be poor ; in other words, poverty consists in the necessity to work for subsistence, without being able, by each day's labour, to provide more means of subsistence than are sufficient for each day. A man becomes less poor when the labour of a day is able to support him more

than a day ; and he grows in wealth, precisely in proportion to the length of time during which he can subsist without actual labour. Wealth, therefore, consists in freedom from the necessity of perpetual toil ; the wealthiest are those who, throughout life, are never subjected to this necessity.

Now, what is the position in which the man of generous nature is ambitious of placing his wife and daughters ? His wish is undoubtedly to let them enjoy that immunity from toil, which is the lot of the wealthy ; he feels that, however laboriously he may require to work himself, he should endeavour to save them from the rough encounter with life's unpleasantnesses, which must be endured in the competitions of labour. This feeling is undoubtedly worthy of all respect ; but the best of feelings, when unguided by rational principles, find expression often in very exceptionable forms ; and it will not be difficult to show that this feeling, when it seeks to raise the women of the industrial classes into the position of an upper class, defeats its own end, and engenders far worse evils than any against which it is intended to guard. There are various ways in which, if it were desirable, it might be possible to secure the deliverance of women from the necessity of labour for their subsistence, as, for instance by a tax to a common fund from which all women might draw, when deprived of their natural male supporters. But it is useless to discuss impracticable schemes for an undesirable object. The fact is, therefore, that men take no real measures to attain the object of their chivalrous wishes ; and women are forced accordingly to find support for themselves. In general only three courses are open. The first,—that which they are taught by all the influences of prevalent opinions and usages to regard as the main object of life,—is to get married. Failing in this first alternative, they may fortunately find a home in the house of some relative. If both of those avenues are closed, the only resort left is self-support by one of the few comparatively unremunerative occupations to which women are admitted.

With regard to the first of these three courses, it is evidently unjust, as well as unchivalrous, to constrain women to look upon marriage as the only natural means of sup-

port. Almost every satirist of modern manners seeks to make us merry over the keenness with which women pursue what they have been taught to consider the prime end of their existence,—the pretty tricks by which the female tempter endeavours to lure the unwary male into the matrimonial trap. In their best moments men cannot join in that merriment; it is but a cruel jest at the wrongs which they have done to women. For the sake of all that is of worth in marriage,—for the sake of manliness in man, and of womanliness in woman,—for the sake of equal justice to both sexes,—both ought to be equally free to choose whether they shall marry or not.

With reference to the second alternative, even if a woman is welcomed in the house of a relative,—even if she is not made to feel herself an intruder,—yet the sense of dependence will be to many,—and these the finest spirits of their sex,—a keen torture throughout life. I shall say nothing of the third alternative at present, as I must return to it again.

2. But the social position of women is owing not solely to the chivalrous feelings, it arises partly from the selfishness, of men. Even the chivalrous desire to free women from the necessity of toil is often,—perhaps in all cases more or less,—alloyed with a selfish vanity. It is not always a manly tenderness for his wife and daughters, that leads a man to relieve them from the necessity of labour, it is too often the contemptible desire of making them a sort of stalking horse for the display of his own riches. We may try to hide it from our minds, but it is impossible, if we look at the facts of life, to deny, that the industrial classes reproduce many of the follies, separated from the virtues, of old aristocracy. The vicissitudes of trade, from the imperfect principles on which it is still carried on, are scarcely compatible with an hereditary aristocracy; and in consequence it has been generally attempted to secure for such an aristocracy a means of subsistence free from those vicissitudes. The result has been to engender, along with the more amiable pride in family antiquity, an utterly reprehensible self-gratulation in the possession of mere wealth,—of the mere ability to subsist without working for the means of subsistence. It is not sim-

ply a superstitious horror of losing caste, that makes the member of an old nobless shrink from contaminating herself with trade ; mixed with that there is a cowardly shame of honest poverty, or, to speak more correctly, at not possessing any riches but those which he acquires by his own industry. Who is there, even among the industrial classes, that does not, by the sheer tyranny of social manners, encourage this craven feeling by his conduct and conversation ? Is there any one who can plead not guilty to the folly of acting at times as if the man, whose hereditary property places him above the necessity of labour, should occupy a more respectable rank in society than the poorer man who, though superior in intelligence and moral worth, is obliged to work for his subsistence ? Can we wonder, therefore, that, even in communities like those of the United States and the British Colonies, which are founded almost entirely on industrial principles, there should be a strong ambition to let women take the rank of those who are independently wealthy ? However numerous a man's daughters may be, and however useless, therefore, for industrial purposes they may be in his own house, he feels that, if they adopt any occupation for their support, he can no longer flaunt one of the most easily recognizable symbols of wealth. A lady, thrown upon her own resources, feels that, if she goes out to any of the well-remunerated occupations of men, she gives unmistakable evidence of being obliged to work for her support ; and none of us dare say that the fear she entertains with regard to her rank in society is wholly without foundation. She knows that social opinion would degrade her rank if she went into a shop or a counting house, a bank or a public office, where she might make a reasonable income ; but she is not disgraced if she remains at home, and toils herself into an early grave at needlework or some similar employment, on the miserable remuneration of which it is scarcely possible to suppose that she could be dependent for her support.

I shall not, for want of time, attempt to illustrate other modes in which the selfishness of men operates, often unconsciously, in excluding women from the more remunerative employments of life. But this foolish pride in

idleness, this aping of aristocracy by merely copying its follies, must give way before truer ideas of real nobleness, in a wiser system of social economy. The industrial influences of the modern world will, it is to be hoped, ultimately teach us to look upon honest, earnest, thorough work as the only ground of esteem, and to place the woman, who squanders invaluable years in idle frivolities, in a less respectable rank of society than the factory girl, who wins at least her own bread. Hereditary property itself, if it exist in the more perfect society of the future, shall then no longer be regarded as absolving its owner from the duty of work, but as merely imposing on him an obligation to labour at some of those employments which, not being immediately remunerative, can be undertaken only by men whose means of subsistence are already secured. It is not of course to be supposed, that in such a state of society women ought to be selected for any employment in preference to men, who are equally qualified for it, or that women would be admitted to all the occupations which are at present monopolised by men. The principles of free trade, which are the principles of justice, ought to be rigorously carried out; and the same rule, which makes it impolitic and unjust to compel me to buy an article from my neighbour when I can get it cheaper or better from a foreigner, makes it equally wrong to compel an employer to purchase the labour of a man when a woman would do the required work better or for smaller wages. At the same time it is clearly wrong to exclude a woman from any occupation, not because it is in itself dishonourable, or because she is not qualified for it, but simply because she is a woman; and no one can have the hardihood to deny that there are various employments of a remunerative character, at present confined to men, for which women are equally qualified.

I have thus endeavoured to point out the injustice of limiting women to a sphere of life, which prevents them from entering on those occupations that yield the means of comfortable or luxurious self-support. The barest justice to them requires that they shall be brought up, as men are, to support themselves by their own labour. Now, what would be the difference in the education of young wo-

men, if they were trained, like young men, with the view of taking part in the industrial arrangements of human life? One of the most obvious defects in the present education of women, whenever it rises above elementary branches, is its comparative aimlessness or the comparative triviality of its aim, contrasted with the comparative definiteness of purpose, which is given to the education of young men, from the fact that it is directed to their preparation for the particular industry which they have chosen. It is impossible to deny that a girl's studies would show much more of earnest and thorough work, if from the outset she were inspired by the consciousness that she was preparing herself for an occupation on which she might depend for her subsistence. Not only, therefore, would the existing institutes of higher education be thrown open to women, or at least new institutes of a similar kind be provided for them, if the usages of society induced them generally to qualify themselves for industrial employments; but their study would be rendered quite as effective as that of men.

II.—It is not, however, necessary to show that the social usages, which exclude women from remunerative occupations in general, are unjust, in order to prove the justice of their claim to the means of higher education. I have dwelt at greater length on this cause of their being ignored in our academical establishments, because it is clearly the chief reason of the omission, and such a social wrong must be rectified before the right of women to the advantages of a higher education will be generally admitted. But it may be worth while to inquire whether that right ought not to be recognized, even if there is no change in the social position of women.

Let us take, then, the narrowest estimate of woman's mission, which can be adopted by the most unmitigated antagonist of her present claims. Let us admit that the sole natural sphere of woman's labour is the family—that every woman ought to be brought up solely on the expectation of becoming a wife, a mother, a mistress of a household: is that any reason why her education should be restricted to the elementary branches,—why the class-rooms of Universities should be closed against her? To deny women on this ground,

the right of a University education, would imply that such an education is not only unnecessary, but would even incapacitate them for the domestic duties which are their peculiar function in society. For if a superior culture would not actually render women less fit for those duties, there could be no reasonable ground for absolutely excluding them from the enjoyment of such culture. It would not be considered just to prevent a young man from proceeding to a University, because he intended to adopt some industrial occupation which could be practised successfully without an academical training. It is always admitted that his University career need not hinder the success of his subsequent occupation, and that, even if it do not add to the success of that occupation, it will probably contribute to his usefulness as a member of general society. In like manner, I believe, no one, except when driven to rash assertion by the perplexities of a controversy, would maintain that the functions of wifehood, of motherhood, and of household economy would be in general less efficiently performed in consequence of the high intellectual culture of the woman by whom they are undertaken. There is no reason, therefore, for excluding women from Universities, which should not, with equal justice, exclude also those young men who cannot directly apply a University training to their industrial occupation, who seek a liberal culture as an object which is worthy of being attained for its own sake.

But if it cannot be maintained that an academical curriculum would unfit a woman for her household sphere of labour, can it even be said that a superior education is wholly unnecessary for that sphere? It may be said, indeed, that the duties of a household have often been, and therefore can be still at times, performed, and well performed, without the previous training of a University; but look at the nature of those duties as well as of the mental activity which is implied in their skilful performance, and you will have little hesitation in admitting that a partial or complete course in the literary and scientific departments of a University could have no natural tendency but to enhance the value of woman's peculiar work. It is common and natural for

men, who are accustomed to see home arrangements only in their tidy completeness, never to reflect on the amount of intellectual and moral activity which the completion of those arrangements has called forth. There is an amusing old Scottish ballad, the subject of which is attempted again in a more modern song, in which a husband is pictured coming home after a hard day's work at the plough and finding his wife seated comfortably at a tidy hearth. He cannot repress a grumble over the difference in the toil which falls to the lot of men and the ease which women seem to him to enjoy; whereupon the wife offers to take the plough in hand next day, if he will attend to the affairs of the house. I shall not attempt to reproduce the inimitable humour with which the results are detailed in the old ballad, the wife returning home after a good day's ploughing to find her husband distracted with the multiplicity of his labours, none of which, in his perplexity, he had succeeded in finishing. The fact is, that a man breaks down on undertaking the peculiar work of a woman, not simply from being unaccustomed to it, but as frequently from the fact that the routine of his own occupation has not cultivated that rapidity and originality of mental action which are developed by the efficient management of a family. The fitness for a life-companionship, which must be of infinite moment to all concerned, the care of children through those years which influence, perhaps more powerfully than any others, their permanent physical, mental, and moral character, the ingenuity of providing for the ever-varying emergencies in the daily life of a family—these things give scope for the display of an intellectual vigour and quickness, as well as of a moral culture, for which no training can be considered too high. But if the ordinary curriculum of a University does not provide the most appropriate training for the domestic duties of woman, what, in the name of common sense, is the peculiar virtue of the studies which are carried on in ladies' schools? If time had allowed, it would have been worth while to remind you in detail of the work which is done in such schools, and contrast it with a University curriculum. Few, however, who reflect, will see in the studies of these schools a more efficient culture for the

proper duties of womanhood than could be derived from the literary and scientific training of a University.

This subject might be enlarged on at much greater length. The few points which I have taken up have been but briefly indicated rather than fully discussed; and to those who have been thinking or reading on the subject, few if any ideas can have been suggested with which they are not already familiar. There may, however, be a number in this audience to whom these suggestions are new, and who may be led by them to reflect more seriously on the injustice of systematically excluding women from all the established means of the highest intellectual culture, while these are freely opened to men, and numberless inducements are offered to them to accept the enjoyment of their advantages.

PRESBYTERIAN UNION

AND

The College Question.

BY

AN ALUMNUS OF QUEEN'S COLLEGE.

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Froude in his address on Calvinism remarks: "There are epidemics of nobleness as well as epidemics of disease." So, we may observe that at some periods epidemics of disunion prevail—at others, epidemics of union. Even a superficial observer of the signs of the times may discern that the present era is marked by a strong yearning for re-union among Presbyterians in every part of the world. May we not hope as well as pray for the day when Pan-Presbyterianism, no less than Pan-Episcopacy, shall see its scattered members assembled in one great family-gathering! In the Australian Colonies the Scottish immigrants sought for a time to reproduce in that remote continent the walls of division which separated the several sections of Presbyterianism in the land of their birth: but ere many years their national common-sense and Christian patriotism taught them that they owed allegiance to their new home as well as loyalty to their old, that they must live for the future and not for the past. A calm survey of the religious destitution sure to end in practical heathenism, that prevailed in the districts into which settlers were pouring, constrained them to sink their differences and form a phalanx of workers combined to battle with the common foe and more effectually overtake the spiritual wants of their countrymen in these new settlements. The result of this movement has been not merely union but unity—amalgamation as well as incorporation. In the United States the great river of Presbyterianism, which upwards of thirty years ago had divided and branched off into separate channels, last year became again a united and thus more powerful stream, imparting fuller and fresher currents of life to the country which it waters, and has thus been rendered a mightier power for the evangelization of that vast country. And now Canada has caught the epidemic.

For several years the opinion has been silently gaining strength from East to West, that the time had arrived when the differences that kept apart the two great divisions of Presbyterians should cease, and that henceforward they should carry on their great work as a united body. There had been a "time" for disruption, and Providence had evolved good from it; now was the "time" for reunion, and the same Providence appeared to be opening the way for a happy "repairing of the breaches." In many places, more especially in embryo towns and frontier townships, there might be seen a state of things which was a reproach to Presbyterianism and a scandal to religion. Two rival causes planted side by side struggled for existence. And what was the

inevitable result? A mere waste of power, a prodigal squandering of vital energies. There was presented the unseemly spectacle of a contest waged not against the worldly and ungodly elements that abounded on every side, but against the membership of one another. It partook of the character, and had inherent in it all the bitterness of a life and death struggle. Other denominations looked on and saw two ministers in process of starvation, worse still, saw the religion, which breathes love and peace and good will to men, starved by a condition of things, which engendered rancour and jealousy, and delight in the fall of others, which tended to confound zeal for a sect with zeal for the honour of God. Were these two struggling causes merged into one charge, one minister would be decently supported; mutual building up and not mutual pulling down would occupy the energies of the membership; and the other minister would be set free to go as a labourer into the destitute fields in the far West and North that now send to us in vain the Macedonian cry. Not only would more men be thus rendered available for these Mission Fields; but also more money for the maintenance of these Missionaries.

In view of these and other weighty considerations, practical men in both Churches at length took heart publicly to ask: "Can nothing be done to remedy this sad state of matters? Is it not our duty to remove the reproach so oft flung at us by the enemy; "see how these Presbyterians hate one another?" Why waste our energies in civil war? Can any reason that will stand the fire of trial at the judgment day be shown, why we should not merge into one our now separate organizations, so as to form one powerful regiment and rally once more under the good old Banner of the Covenant? Superstition, ritualism, avowed irreligion are around us, everywhere active and aggressive; the vast North-West is opening its gates, into which will set at no distant day a full tide of immigration; and must Presbyterianism be crippled by its divisions and thus prevented from gaining that position in the Dominion for which its powers of usefulness so eminently fit it? Are its sons not called upon to prepare to assume the obligations imposed by this prospect so as to pour in Missionaries on the crest of each fresh tide of immigration into these new regions?" The confederation of the several Provinces into one Dominion gave a powerful impulse to this feeling. The sentiment that a union of all the Presbyterians in British North America was desirable at length ripened into the conviction that it was practicable; and with remarkable unanimity, the Supreme Courts of the four organizations into which Presbyterians are divided appointed Delegates to meet at Montreal, for the purpose of considering whether, in view of the many and vital points on which all were agreed, separation could any longer be justified. In the selection of the Delegates, one object among others seems to have been specially aimed at, that all shades of opinion should be fairly represented in the Convention. It was composed of men both of the conservative and advanced types of

thought ; Free Church, United Presbyterian, Burgher and Church of Scotland ; Old Countrymen and Canadians ; both Lowlanders and Highlanders. These Delegates appear to have met in the spirit of their Master, animated with the resolute determination, that, if a union could be effected without sacrifice of principle on either side—such a union as would be productive of strength and not weakness—a union calculated to prove harmonious and durable, it should be effected. The result of their deliberations was the unanimous adoption of a Basis of Union, inclusive of all essential points, and at the same time tolerant and comprehensive. Supplementary to it was a resolution anent what is termed “the College question.” This also was unanimously agreed to by these ministers and elders, representatives of the several Churches, men supposed to possess the confidence and express the views of the several negotiating bodies. We have reason to believe that the Synod of the Presbyterian Church of Canada in connection with the Church of Scotland will not repudiate but, on the contrary, cordially adopt the work of their representatives and the “assembled wisdom” of the Churches and send it down to Presbyteries, with a view to receive the approval of these Courts, preparatory to ratification by the Supreme Court.

We learn, however, with surprise and regret, that opposition to the supplementary resolution anent “the College question” has been threatened from certain influential quarters in the Canada Presbyterian Church. This opposition, we imagine, has arisen, to some extent at least, from a misunderstanding of the position on this question assumed by the Convention. That body may not have been ; in fact, we think they were not sufficiently clear and explicit on the point. The terms employed to express their views appear unfortunately to give colour to the opinion entertained by the parties above referred to, that they were *theorizing*, not dealing with *facts* ; proposing the establishment of a *new* University, not recognising a long existing, firmly established and well equipped Institution. That wide-spread objection to the establishment of a *new* University would be raised, we can readily conceive, as the belief is general that already too many University Charters are in operation, at least in the Province of Ontario ; and to add another to the number would be to aggravate the evil. But Dr. Taylor, Dr. Topp and Dr. Snodgrass, leading members of that Convention, and therefore entitled to be heard with authority as to what was meant, have assured us that they did not propose to establish a new Institution, but referred to the University of Queen’s College in the clause to which objection has been taken.

Lest, however, opposition should still be made to the adoption of Queen’s University and College, *as* it is and *where* it is, so that it shall hold to the United Church the relation which it now occupies to one of the negotiating Churches, we publish this pamphlet in the hope that it may aid in clearing up some points on which a haziness of view seems to prevail.

As the exact nature of the relation between the Church and College has been apparently misconceived, let us distinctly ascertain what this relation is.

The University and College is governed by a Board of 27 Trustees. These gentlemen appoint the Professors and control the Institution. The Board is composed of the Principal, eleven other clergymen and fifteen laymen. The Clerical element is elected directly by the Synod. The lay members are chosen in the following manner. Each Congregation in the Church has the privilege of nominating triennially out of its own membership or the membership of the Church generally a representative, to be one of a list out of whom are chosen the requisite number. If any Congregation fails to elect a representative, the list from which the lay Trustees are selected is so much curtailed. Sometimes it happens that the same person is nominated by two or more Congregations. Through this machinery a Board is formed partly through the Synod and chiefly through the Congregations, composed of persons in whose character, judgment and orthodoxy the whole Church has confidence and who (it is assured) will on the whole rightly discharge the trust reposed in them. That during the last 30 years they have discharged their trust in a highly conscientious way, none can gainsay. *Denominational* the Institution may have been, *sectarian* it has not been. More than half the Students who have attended its classes were connected with other denominations; yet, while assiduous care over their moral and religious welfare has been evinced, not a single charge has ever been even insinuated that it was used as an engine for proselytising purposes. Such is the extent of the connection between the College and the Church. Even if it were only a Theological Hall, a Board of Trustees or Governors would be required, elected in some such way as the above. Its functions would be different only in this respect that, instead of having the appointment of seven or eight Professors, this patronage would be exercised in the case of only two or three.

We can see many strong reasons wherefore it would be advantageous to the United Church to have associated with it the University of Queen's College as it is; no weighty reason why the Church should not desire to have it, applying as it does, to be received not *in pauperis forma* but possessed of a valuable endowment.

This important question cannot be rightly understood unless we draw sharply and clearly the distinction between a University and a College. In the objections that have been taken to the proposal of the Convention, these two things seem to have been jumbled together, rendering it difficult to perceive whether the objectors are opposed to the connection of the Church with the University feature of the Institution, or with the Arts Faculty, or both.

What is a University?

A University is simply a Board, technically termed a Senate. This

Board prescribes a curriculum, lays down a programme of studies, fixes upon a standard to be reached by successful candidates for Academic distinction, and appoints examiners. It exists not for instruction, (that is the work of a College) but examination; not for imparting an Educational training or communicating information on literary and scientific subjects but for testing the results of this training. The Examiners, whom it appoints, examine such Students as may be sent up by the College or Colleges affiliated to it; and to such candidates, as have reached the prescribed standard and have thus been found qualified, the University awards a certificate of qualification in the form of a Degree.

A University may have affiliated to it one College or several Colleges. These may exist in one locality, or in places widely remote. The University of Oxford has 20 affiliated Colleges, all within the town of Oxford. The University of London has affiliated Colleges scattered throughout England and some of the Colonies. While the University of Edinburgh (prescribed in the Royal Charter of Queen's as its model) has only one College. *Practically* the last named form exists in Ontario. The University of Toronto has University College; Victoria University has Victoria College; Queen's University has Queen's College.

The writer is an advocate for more than one University in the Province. Not that he approves of the present condition of University Education in Ontario. Without doubt too many charters have been granted. They were accorded with a fatal facility to all and sundry who applied for them in the closing days of the *regime* which preceded Confederation. But Queen's is not responsible for this state of things. It is the *oldest* in operation. We wish then to be regarded as advocates of the *use*, not the *abuse*. The attitude of Queen's to the Higher Education of the country is that alone with which we have to do.

Who will say that England has not been the better of possessing Cambridge as well as Oxford? And these were founded centuries ago, when population was sparse. Look at Germany where higher learning flourishes more vigorously than in any other country. How many Universities has she, and we have yet to learn that injurious results have accrued from the multiplicity and variety of these—that any agitation has ever been set on foot for the concentration of them. Would any one in his sober senses propose to destroy the University of Edinburgh or Glasgow or Aberdeen or St. Andrew's, and these were all in full vigour when the population of Scotland was not larger than that of Ontario at the present day. To propose such a thing would be deemed a retrograde step. We believe that the educational interests of the country can best be advanced by having a variety of institutions, each characterized by some distinctive feature. Thus Oxford is regarded as the special home, as the chief patron of the Classics and Philosophy; Cambridge of Mathematics; London of the Natural

Sciences. Life and uniformity are very far from being synonymous. Hear Professor Seeley, the accomplished Professor of Latin in University College, London, one of the foremost educationists of the day (*vide* *Essays on a Liberal Education*, pp. 146): "Education, in fact, in England is what the Universities choose to make it. This seems to me too great a power to be possessed by two corporations, however venerable and illustrious, especially since we know them to have grown up under very peculiar circumstances, and to be fortified by endowments against all modern influences, good or bad. I wish we had several more Universities; I mean teaching as well as examining Universities. I hope that the scheme, which was announced some time ago, of creating a University for Manchester will not be allowed to sleep. I should like to see similar schemes started in three or four more centres of population and industry. Could any investment of money in philanthropy be less questionable at this time? Is there anything more undeniable than that our material progress has outrun our intellectual,—that we want more cultivation, more of the higher education, more ideas?"

The only country in the world which, so far as I am aware, has adopted the one-University idea is France. Arrayed against this is the practice of England, Scotland, Ireland, Germany, Belgium, Switzerland, &c., in the old world, and that of the United States in the new. The case stands France vs. the rest of the educated world. Canada! which is to be your model? University Education is one of those things on which very varied opinions are held, and there should be no cast-iron rule for each and all—no one mould into which to force our Institutions, else symmetry and uniformity may be gained at the expense of life, or at least of a healthy condition. Some look to *information* merely, and would confer a degree on any one who was able to pass a prescribed examination, though that might be the result of cramming and he had not attended college for a session. Others lay stress upon educational training and the advantages to be derived from going through a regular curriculum at a fully equipped Institution. Some esteem of highest value the ancient—others modern studies. One University favours the English—another the Scottish type of education. And as there are varying tastes and opinion, so there should be a choice of Universities. Monopoly is the worst foe of healthy education as of healthy trade. Competition stimulates and prevents stagnation. No true reformer should advocate a system that would crush wholesome rivalry and spirited emulation.

That a scheme of affiliation was not carried out some years ago is not the fault of the authorities of Queen's College. Such a Scheme was submitted by Principal Leitch to the Senate of the University of Toronto. That Board, however, was opposed to it mainly, we believe, from a fear that the representatives of the Colleges other than University College, in the Senate proposed to be formed, would swamp

those of that Institution. Into such a scheme of affiliation Queen's might have entered at that time with comparative safety to her interests as circumstances then were, inasmuch as a common interest in the continuance of the Legislative Grants would have been a tie, connecting all the Institutions thus interested. Now, however, that these Grants have been forever withdrawn, this tie has been sundered; and Queen's has little in common with these other Colleges in matters of general policy. Hence she could not rely on them as her natural allies, as she formerly did. In this changed situation, Queen's could not trust her interests with safety, at any rate with confidence to a Senate, where the preponderating influence would be wielded by the representatives of University College, an Institution that has long regarded her with unfriendly feelings. The Kingston rival could not be assured that fair-play would be constantly exercised in the appointment of Examiners.

Pray, what gain to the country, what benefit to Queen's would accrue from the surrender of her charter and her agreeing to go into a scheme of Ontario affiliation? A degree from Queen's has now as high a value, say at the University of Edinburgh, as would a degree conferred by a University of Ontario, were such instituted. For upwards of 20 years a succession of alumni from Queen's College have gone to finish their studies, or, after finishing them, take an additional session at the Universities of Scotland or Germany; and almost invariably they have earned high distinction. And these were not always men who occupied the highest position in the Canadian classes. Let us confine ourselves to the last six years. One carried off the degree of B.D. with distinguished honour. A second bore away with eclat the degree of Doctor of Science. And within the past three months a young gentleman, who came out No. 2 in the Pass List of Queen's won one of the chief prizes in the gift of the University of Edinburgh, his competitor being a First-class Honour Graduate of the University of London.

Now that the several British Provinces in the northern half of this continent have been united in Confederation, why do not the admirers of the one-University idea advocate the establishment of one University for the Dominion, to be called the University of Canada? The leading argument in support of their favourite idea, which these advance, is that Canadian Degrees would have a higher value—would receive more wide-spread recognition in the educational world, if there was only one fountain for Academic distinction, a uniform standard by which to test the qualifications of aspirants to these honours. Looking at the *questio vexata* from their point of view, if this end would be more likely to be gained by an Ontario University than by the present system, *a fortiori* it would be secured in a still higher degree by a Dominion University. Moreover, the adoption of such a scheme, would, we conceive, be attended with fewer practical difficulties

than the one proposed of having a single Degree-granting Board for the Province of Ontario. Such a scheme, we should suppose, the authorities of Queen's College might be disposed to take into grave consideration. We are of opinion, that she might safely trust herself to a Senate, in which seats would be allotted to the representatives of McGill, Dalhousie and Fredericton Colleges. The Scottish type of education pursued at Kingston would, in such a case, be likely to secure due recognition—the candidates for Academic honours whom she sent up to pass the ordeal of the Central Board of Examiners might reasonably expect fair and impartial treatment.

Even if the idea here broached became an established fact, and there came to be but one University for Canada, with affiliated Colleges scattered through the several Provinces from Halifax to Victoria—even in such a contingency, Queen's would require to preserve intact, and maintain in active operation that portion of her Royal Charter which grants power to confer Degrees in Divinity, as well as the Honorary Degree of L.L.D. To this prerogative the Corporation of the University attach great importance. Our ambition is to render the land of our adoption a fac-simile in all that is good of the land of our origin—to reproduce in Canada all that has tended to make Scotland what she is—to elevate it by diffusing higher education, imparted under religious influences, and making it accessible to the struggling son of poverty, as to the youth bred in the home of affluence or comfort. In stating this to be our aim, we mean no offence to Ulster Presbyterians ; for them we regard simply as Scotchmen making their home in Ireland, as we are Scotchmen living on Canadian soil. In the interests of a Christianity that shall command the reverence of the Miltons of literature and the Newtons of science—animated by motives of the highest patriotism—following in the footsteps of Knox and Chalmers, we desire to keep up the standard of a highly educated as well as pious and devoted Ministry. Our pulpits must be filled with men of power—men thoroughly fitted to be champions of the truth, bulwarks for its defence in an age when the man of science assumes to sit in the chair of the scorner and shape a wreath of laurels for himself by plucking the crown of thorns from the brow of the Crucified One—men possessed of the versatility and scholastic resources of Paul, who could worst the Jews of Thessalonica by the use-polished sword of the Spirit taken from the armoury of Sacred Writ, and confront the philosophers of Athens with weapons purchased by the brain-sweat of his early years from their own poets. Our pastors must be men of erudition and culture, as well as skill in Bible lore. Such is the high aim at which we aspire. With any point short of this we must not content ourselves, nor come down to a low educational standard to accommodate ourselves to the wants of the hour. For we may rest assured that a meanly-equipped ministry will inevitably result in a poorly paid pastorate, and this will induce a

condition of things in our manse, calculated to repel the youth of talent and spirit. In these days of active research and speculative inquiry among the votaries of literature and science, who in so many instances are led away by the wisdom of this world to hold in light estimation the wisdom of the cross, the demands of the pulpit are rising every hour. Hence each and every inducement that may tend to stir up our ministers to keep abreast of the age in which we live—that may win them from turning their backs forever, when they leave the halls of their Alma Mater, upon the laboratory of the chemist, the studies of the naturalist, the disenchanting wand of the comparative mythologist, must be highly prized. Now it has been found in the old country that the hope of adding to his name in the mid-time of his days, or even in the evening of his life, those mystic letters D.D. or L.L.D., as a sign of high professional acquirements, or as a public acknowledgement of services rendered in the cause of Nature's God, acts as a powerful stimulus to the maintenance of a high degree of intellectual power and scientific culture among the clergy. And to what source for the attainment of these Degrees, can our Canadian-educated ministers naturally look? Not certainly to the Universities of Scotland, for these cannot be expected to know them unless they shall have acquired a world-wide celebrity. Not to those in the United States, as diplomas from the great majority of these Institutions do not secure a high meed of respect on this side of the St. Lawrence. Hence in any case it is an admitted necessity that the right to confer such Degrees, conveyed by Royal Charter to the University of Queen's College, must be strictly preserved, that thus an avenue to Academic recognition may be open to such of our ministers as have earned theological, literary or scientific distinction.

Were such a Dominion University established, we hold that affiliation with it should be open to all suitably equipped Colleges, no matter by whom founded or controlled; whether by the State, by a Church, by a Municipality or an individual. When any College presents itself and asks for affiliation, the sole conditions of admission insisted on should be that it conform to the uniform curriculum, adopt the prescribed programme of studies and have a Professorial Staff sufficient to educate up to the required standard. No question should be asked as to its connections. To refuse admission to it because instituted or governed directly or indirectly through a Church, were to pursue a policy of proscription, were intolerant in the last degree. This would be to place under a ban a very large portion of the community, who will entrust the higher education of their sons, when away from the wholesome influences of home—when the minds of these are in most plastic state and most susceptible of influence from the associations that surround them—only to men for the exercise by whom of a healthy influence over the religious principles of these, they have what is regarded by them as a sufficient guarantee. If these people are denied

the right of obtaining a Degree in Arts for their sons, because these have been educated at a College in which they have confidence—a College, moreover, that is endowed wholly out of private resources and receives not one cent from the public treasury—they will suffer from as illiberal and narrow a policy as that against which educational reformers in England are warring, the limitation of Degrees from the old Universities to those who accept the Thirty-nine Articles. A *no-church* shibboleth is as much a relic of the persecuting and intolerant spirit of the dark ages as an *all-church* shibboleth. Class legislation is abhorrent to the spirit of this country and age. What then are we to think of the dictation that would close the avenue to University honours against those who have received their education at a certain College, because it was connected with a Church, that is an association of professedly religious men; but would accord recognition to another College, though governed by men who had formed an association on the ground that they did not believe in Churches. Such theorists regard the connection of a Church with an Institution for higher learning as a species of educational small-pox. Carry out the principles of these to their legitimate issue, and they would recognize a Seminary founded and endowed by a Girard, whose charter breathed the strongest aversion to Clergymen and religion—a College founded and endowed by the Plymouthites, whose creed is a no-creed, who scout the name of a sect, and whose association is founded on the basis that they are not a church; while they would put the stigma of reproach and exclusion upon an Institution, no matter how efficient or popular—no matter how thoroughly it performed its work or how deeply it was seated in the affections of a large portion of the community, simply forsooth because it was founded, *endowed* and maintained in efficiency by a Church. We will tone down our indignation to the faintest shade and simply ask, would such a policy be calculated to further the interests of higher education in this Canada of ours—to secure University-bred men from *all* classes—to turn out the *largest number* of well-trained graduates for the service of the Country in every department of public life?

We hold that there is no standing-ground that can be maintained intermediate between the system at present in operation and one University for the Dominion. The advocates of the one-University idea rest their argument on the greater value that would thus be placed on Canadian Degrees—on the higher and more general respect that would be accorded to them among the savans of other lands. To be consistent, therefore, their energies should be directed to the attainment of this end, which might be secured by the joint action of the several Provinces. While Queen's might feel that her interests would not be endangered by the adoption of such a Scheme and that she could safely trust herself in a Senate, in which representatives of the Colleges already named had a seat and an influence; yet it is very evident that she would greatly prefer to maintain her separate individuality. There

are many reasons wherefore she should do so. Not, be it observed, that we believe there ought to be a necessary connection between religion and a University, regarding a University simply as a Board whose functions are to examine candidates for Degrees and award certificates of qualification in the form of Diplomas. It is on other grounds that we esteem it to be the duty of the Board of Trustees to retain their University Charter unimpaired. These are briefly as follows. Since the unanimous voice of their corporation, that is, the whole constituency of the Church, expresses the determination not to surrender in any case the power to confer Honorary and Divinity Degrees, they may as well retain the whole charter as it is. Queen's is conscious of having done as much as any Institution in the country in her individual capacity to elevate and impart a high tone to University Education. She has an honourable history of thirty years. She has now a long line of graduates filling useful positions in every profession in a manner fitted to reflect credit on their Alma Mater, to establish their claims to the Degrees which they have received and to be beneficial to the country. The affection which they bear to her, the pride with which they regard her has been recently proved in her trial-hour, when they rallied around her and nobly made sacrifices to perpetuate her existence. None of them is past mid-life—most of them have not been many years engaged in the great life-struggle—many of them are in the ministry, which in this new country cannot be regarded as remunerative in a pecuniary sense, and yet the aggregate of the contributions of 60 of her sons amounts to \$10,000, averaging \$166 to each. Certainly the considerations should be of very pressing importance that would constrain her to sunder the Academic tie that binds her to such alumni. Moreover, by remaining as she is, she is free to follow without trammels of any kind her own method of University Education, free to select the studies to which she attaches prime importance, and possesses unrestricted liberty to choose whatever crucial process she may deem best fitted to test the results of the Collegiate training which applicants for her Degrees may have received. At any rate let her continue as she is, until the Scheme of a Dominion University has been consummated. It is now too late in the day to propose an Ontario Scheme of affiliation. The time has passed for that, as she now draws not a fraction of her revenue from the Government Coffers of that Province. Queen's is a Quebec as much as an Ontario Institution. Her corporation extends over both Provinces. The contributions to her Endowment Fund have come from both sources;—Montreal alone giving upwards of \$26,000. Gentlemen! drop hobbies—cast theories to the winds—tell us plainly, what *practical* injury has accrued either to Presbyterianism, to University Education, or to the country, from Queen's University and College as it has been managed during the past thirty years. On you lies the *onus* of proving this.

Having discussed the University aspect of the question in its

several bearings, we proceed now to examine the Collegiate feature of the Institution.

Is it to the connection between the Church and the Arts' Faculty that objection is raised?

If the relation between these be severed, and the Arts' Faculty be divorced from all connection with the denomination that has founded and endowed it, what do the opponents of our policy propose to do with it? Sell it to the Government! Admit for a moment the very improbable supposition that the Church would be disposed to part with that which has materially contributed to make her a power in the land, would the Government be disposed to come down to the House with a suitable vote in the estimates for the purpose of purchasing it? If so, they would have also to do the same for Victoria and the other Colleges that now have denominational connections. Moreover, what would become of the munificent endowment that has lately been subscribed? This was raised mainly for perpetuating the existence of the Arts' Faculty under the control and management of the Church, and faith must be kept with the donors, or their money must be returned to them. Already, as we perceive by the calendar, 44 scholarships, of the value of \$500 each, and 175 nominations, of the value of \$100 each, have been paid up in full, amounting to \$40,000. and for these a *quid pro quo* has been guaranteed, in the form of free education to children or proteges in the Arts' Department.

It must be borne in mind that the University of Queen's College was founded by the Free Church portion of the C. P. Church as much as by ourselves. They were responsible equally with us for its initiation under its existing charter, in its present form and in its central location. If the tribute of praise be due to its founders, they can fairly claim a share of the credit. If, on the contrary, those were guilty of a blunder and a wrong, they must bear a portion of the blame. Why then should these or their ecclesiastical successors now seek for the first time to frame a new article of policy and condemn that which they helped to call into being? Is this course dictated in the interests of a desire for union? We have always understood that parties negotiating for a union, such as that proposed in this country, instead of erecting new barriers, sought rather to wear down those which already existed.

That the Canada Presbyterian Church has not denounced the connection of an Arts' Faculty with a Theological Hall for the more thorough equipment of candidates for their ministry can be shown from their records and their practice. The resolution moved in their Synod by Mr. Kemp, and seconded by Dr. Jennings, on June 12th, 1862, and carried by a majority vote, was clearly in opposition to what were called "sectarian grants"—was condemnatory of "the appropriation of the public funds for the maintenance or endowment of denominational colleges." This question has now been consigned to

the region of dead issues. In the contest for these "grants" the members of the Canada Presbyterian Church were our stoutest and most formidable opponents. The contest was hot and protracted; but in the last grand battle of the war we were beaten, and at once accepted the issue. Without delay we gathered up our energies, not dispirited but roused and freshened by the defeat we had sustained, and proceeded to do what our opponents, during the heat of the controversy, had repeatedly urged upon us—endow it out of the resources of ourselves and such friends as the Institution had, by a course of admitted usefulness, made for itself elsewhere. This movement has been crowned with remarkable success, and nowhere in Canada is there a more glorious monument to the liberality of a people in support of a cause on which they have set their hearts. Queen's College now does not receive one cent directly or indirectly from the public coffers, *nor does she ask it*. She has learned the vanity of trusting to "princes" or to Governments.

But this resolution of the C. P. Synod of 1862 was in its motive and aim very different from a condemnation of the connection of a Church with Arts' Chairs maintained out of their own resources. Why, on the pages immediately preceding the resolution above referred to, we find that the Synod *voted down* a proposition for "abolishing the literary course of Knox College."

Why did the Presbyterian Church of Canada in connection with the Church of Scotland make this extraordinary effort to maintain and increase the efficiency of the Arts' Faculty, so that to the generations to come it might be what it had been to the generation past. This is an important question. Let us seek to answer it.

We may premise our statement by the remark that Queen's College now teaches neither medicine nor law. Some years ago these Faculties were in connection with her. Now she has given up both these departments of study.

The professed object—the grand aim for which the Institution has been maintained is not to impart a University education to the youth of the Province generally, but to equip in such manner as we deem most efficient for the purpose young men in training for the ministry of our Church. We hold that the wants of the age demand a class of ministers who are not mere *specialists*. Hence we do not approve of a system of instruction, whose tendency, by its encouragement of options, is the manufacture of specialists. What is a specialist? One who from capacity or taste has a favourite study, either classics, or mathematics, or metaphysics, or the natural sciences, or history. To this one subject he is allowed to devote, wholly or mainly, his time and powers. Those subjects for which he has no natural inclination or desire, even though they may be the best adapted as an educational instrument, he is permitted to lay aside or comparatively ignore. Thus by concentrating himself on a department of study

which he can easily master, and not being constrained to grapple with those which may present formidable difficulties, but which will exercise his mind, he may become a scholar well versed in one or two branches, but he is not turned out a well-trained, thoroughly disciplined thinker. The tendency of such a system is to send forth from the halls of a College men with biased minds—marked by a one-sided developement of intellect which is not healthy. We admire not a University which, by its mode of testing results, or a College which, by its method of instruction, encourages a system that looks chiefly to information, no matter how or where acquired, and not to education in the literal sense of that much abused term. Our ideal of a College for the proper preparation of candidates for the ministry is that of an intellectual *gymnasium*. How did the Greeks perfect the corporeal energies of their sons? Did they allow a youth to select any one of the gymnastic exercises that composed the curriculum of their physical education, and restrict his attention to that? No—for only *one set* of muscles would thus have been called into play. Vaulting, running, wrestling, throwing the discus—the round of all these varied exercises had to be taken by each, that vigour might thus be imparted to *all* the muscles of the body, that there might thus be developed the fleet foot and brawny arm, a symmetrical figure, a well proportioned and powerful *physique*. The analogy applies to the education of the mind. Its muscles must be strengthened by a *variety* of studies. From the Collegiate arena should issue a succession of athletes, who have had the bone and sinew of their mental frame indurated and trained by *several* classes of difficult exercises. Thus only can they come forth to the great battle of life with a muscular brain-power, enabling them to grapple successfully with the multiform difficulties which face a minister amid the seething inquiries of the nineteenth century. Thus only can we obtain Herculeases, fitted to combat the Hydras of error, offspring of that old serpent, the devil. To qualify our students for detecting the most delicate shades of meaning in the original Scriptures—to make them at home with the most intricate and complex processes of thought—to have the natural sciences presented in such a way as shall enable them to meet the objections to Revelation advanced from time to time by scientific skeptics—to furnish us with a thoroughly drilled, well disciplined body of champions for the truth, these are the grand requisites which the Church demands. To ensure this important object it is essential to have the supervision of their education from the beginning to the close of their Collegiate career. We want to be in a position to shape their Arts' as well as their Theological studies, so as to render these conducive to a thorough equipment for their future work. Now this end can best be secured by having an Arts' Faculty completely under our control. If the Church desires special attention to be given to certain subjects, e. g.—if she wishes the Greek New Testament to form part of the classical course,

or if she is anxious that its legitimate place should be accorded to metaphysics and ethics, an intimate knowledge of which has so eminently tended to adapt the Scottish pulpit to the Scottish mind, she has only to express her wish and it will be at once attended to.

The best witness we can summon in proof of this advantage of having an Arts' Faculty in connection with us is the Canada Presbyterian Church. That denomination has at least one Arts' Chair in active operation in Knox College. In establishing that Chair they have conceded the principle for which we contend. One Professorship is as good as six for establishing the principle. They believed that justice was not done to the important department of Mental Philosophy at University College. Hence they have had to appoint and pay Professor Young to perform this work which they cannot get done to suit them at the Provincial Institution. In the Report of the Board of Management of Knox College to the Canada Presbyterian Synod of 1869, we find the following clause: "The Rev. George Paxton Young, A.M., having accepted the appointment of the last Synod, entered upon his duties and taught classes in Mental Philosophy, Elementary Greek and Latin." "Mental Philosophy, Greek and Latin!" Are not these Arts' classes?

Another motive which nerved us to maintain the Arts' Faculty was this. As a Church we hold it to be of vital moment that our young men, who have the ministry in view, should from the time they leave behind them the wholesome influences of parental control, and enter upon an Academic career, be under the influence and example of professors who, while profound scholars and successful teachers, also hold orthodox views in religion. Between the ages of 15 and 20, the time when most men enter college, is the most critical period of life. Then the mind is remarkably plastic—very susceptible of impressions from without—most liable to be moulded by surrounding associations. From those above him, even more than those around him does he catch the tone of his future character. Hence it is of exceeding importance that the Professors, with whom he is in close contact for several years at the era when his character and views are in process of formation, should be men of tried religious worth as well as of proved capacity for the responsible position which they hold. Not that we fear that a Professor may sneer at Revelation in his class room—not that we expect him to deduce Presbyterianism from geology, though Froude shows that Calvinism can be drawn from history. But if his students admire him for the brilliance of his genius or the clearness of his prelections, and if they know him to be either skeptical in his opinions, or utterly indifferent in his practice—then comes the danger. Will not his youthful and enthusiastic admirer be disposed to argue: "If so learned a naturalist—if so distinguished a savan as Mr. A. believes not in the Gospel doctrines, propounded from our pulpits, it is because there is not much truth in these." Bear in mind that the

abler the man, the greater is the danger of their imbibing his loose views on Revelation, not directly from his prelections, but indirectly, even unconsciously to him from his unconcealed opinions and undisguised attitude towards the Bible. Hence the necessity of providing ourselves with a guarantee for the appointment of suitable men to those positions where they are entrusted with such tremendous power for weal or woe. And what is that guarantee? Not the prescription of a test or requirement of an oath. A fig for such subscriptions as a security for orthodoxy! These are no reliable pledge that the Professor will exercise a healthy influence upon the student's maturing opinions and tone of life. That guarantee is the circumstance that the appointment of Professors is vested in a Board, whom we have nominated, and in whom we have confidence. We rest assured that, composed as this Board is, and reflecting as it does the mind of the Church, the members thereof will look well to the men whom they select—will consider their character and principles as well as learning—will be careful to fill the chairs at their disposal with such as give no countenance to the attempt to oppose Nature to Revelation, to divorce Nature from Nature's God. We venture on an hypothesis, by no means improbable. Suppose a vacancy were to occur in the chair of Natural Science in University College, and the Government of Ontario (in whom the appointment is vested) were to select one who would teach science in the spirit of a Darwin or Huxley rather than in the spirit of a Dawson, would the C. P. Church not be likely, in order to guard the Scriptural principles of candidates for their ministry from being undermined, to appoint a person in connection with Knox College to do for them that which they could not get done in a way to meet their wishes at University College, just as they have employed Prof. Young for the department above referred to?—We are much mistaken if they would not feel it to be their duty to do so. For, be it remembered, according to the principles of our opponents, according to the spirit of the University Act of 1853, Government, in examining the qualifications of candidates for the chair in question, would be bound to look simply at their scholarship and aptness to teach, without making their theological views or religious bearing an element in the consideration.

We may refer to another practical advantage which the Church derives from the connection with it of the Arts' Faculty. It has merely to be stated when its inestimable importance will be comprehended at a glance. The fact that our ministers, *ceteris paribus*, have a preference in appointments to these chairs is a powerful stimulus to them to keep up their literary and scientific attainments—is found to act as a lever for raising and maintaining the standard of a ministry marked by intellectual calibre, mental culture and scholarly attainments. Whereas under the system that has prevailed in Toronto for nigh twenty years, although the C. P. Church has contributed

half of the students, they have not one representative on the Professorial staff.

For these and other reasons the Presbyterian Church of Canada in connection with the Church of Scotland recognize the value of having at least one Arts' Faculty under their control. Let it be borne in mind, however, that candidates for the Ministry are not *obliged* to attend this Institution. If they prefer the system of instruction pursued in any other College, or if they find it more convenient to their homes to take their Arts' course at Toronto or Montreal, they are at perfect liberty to do so, and they receive the same treatment as the alumni of Queen's when they present themselves to the Synod's Examining Committee. No distinction whatsoever is made. While the overwhelming majority, at least nine-tenths, of our Church have nobly rallied around Queen's College, and have contributed, many at great pecuniary sacrifice, to its Endowment Fund, yet there are a few who from various reasons might prefer to send their sons elsewhere, and it is right they should have unrestricted freedom to do so. Hence one of the advantages of having a variety of Institutions, so as to meet diverse views, and put a University Education within the reach of all classes of society, all shades of opinion without violence to their conscientious scruples—with no ban placed on either their religious or irreligious views.

We have sketched the principal objects for which the Synod determined to maintain the University of Queen's College in its integrity. The inspiration of the movement was drawn from a resolve to have in connection with the Church at least one fully equipped School of the Prophets. While such was the case, they were equally determined to maintain not only the denominational but also the unsectarian character of the Institution in the future, as it had been in the past, with not a whit less of broad and liberal Catholicity in its management and instruction. If persons in other denominations had confidence in its government; if they were fully assured that their sons would there be under religious but not proselytizing influences; if they preferred the method of education there pursued; if they found it more convenient to their homes or less expensive to send to its halls, the classes of Queen's should be open to these without test or any barrier whatsoever. As during the past 30 years, so in all time to come, a hearty welcome would be accorded to them. The fees of such would aid the revenue of the Institution. Our own students would receive the educational advantage arising on the one hand from the greater fire imparted to the Professors from the enlarged number forming a more powerful battery of electric enthusiasm, and on the other hand from the increased emulation caused by more spirited competition. The highest tribute that can be paid to the unsectarian character and liberal management of Queen's College is the fact that

more than half of its alumni have belonged to denominations other than that with which it was connected.

So much for the maintenance of the University of Queen's College *as it is*. Let me now make a few remarks with reference to the maintenance of it *where it is*.

Surely no valid objection can be raised to its present situation. The site is in its favour rather than otherwise. It is central, occupying a position midway between Quebec and Sarnia, or, if you will, between Newfoundland and Manitoba. It is easily accessible by rail or steamboat. The town is healthy. The cost of living therein is moderate. Kingston may not be a large place—hence it is all the better adapted for a College. Its City-hall is not the theatre of a never-ending succession of concerts and evening entertainments, and thus fewer temptations to dissipation of time are presented to those who are constitutionally indolent, or who by temperament are easily led away from grave studies to unseasonable recreation or frivolous amusement. The busy hum of business—the crowded streets—the ceaseless stir of dense population are not congenial haunts of study. Take away the Universities, and what would be left of Oxford or Cambridge? Glasgow, the largest and busiest city of Scotland, cannot be quoted against us, inasmuch as Glasgow, for three centuries after its University was established, was not more populous than Kingston now is. Look at the Continent of Europe. Heidelberg possesses only 12,000 and Halle 29,000 inhabitants. What principle seems to govern our American neighbours in the selection of Collegiate sites? Hartford, the seat of Yale, prides not herself on busy hives of manufacturing industry. Are Andover and Dartmouth famed as marts of commerce? Large cities, like New York and Philadelphia, by their teeming hospitals and ample materials for furnishing an able Professorial staff, may attract the followers of Aesculapius, but what educational establishments, except their medical schools, have won a Continental fame? The recently founded Cornell University has its home in Ithaca, a village in central New York. Take the practice in this matter of the Presbyterian Church of the United States. Princeton, the site of their oldest and leading Institution, is not larger than Perth or Whitby. Of their other colleges, Danville, Union, Western, Hamilton, Lane, Union, and North West, only one is situated in a large city. Moreover, Queen's College owns and occupies *immovable* property to the value of \$40,000.

Some have proposed to remove the Institution to either Montreal or Toronto. These cities certainly possess many attractions, and present powerful inducements to such a course; but the disadvantages arising from this step would more than counterbalance the advantages. Apart from other objections—such as the multiplying of Universities in places where one is now inadequately supported, and the leaving Central Canada entirely destitute of facilities for acquiring a Collegiate

education—there is one specially fatal to the project. In neither city would candidates for the ministry be surrounded by a healthy professional atmosphere. In Montreal young men are regarded as mere *money-making* machines. So soon as a youth arrives at the age of 15 or 16, he is not sent to College so as to have his mind disciplined and cultured, but thrust into a mercantile office with a view to earn money, that being regarded as the *summum bonum* of existence—the chief end of man. In Toronto, while a larger percentage of young men, in what is termed *good* society (i.e. *rich* society!) seek a Collegiate education, they are surrounded with influences and associations calculated to impress and foster the idea that a professional man should be a lawyer, perhaps a doctor, certainly not a minister. This is altogether too poor a business for a youth of talent and spirit. Here is a question for ecclesiastical statisticians—how many of their ingenuous sons have Montreal and Toronto furnished to the ministry of the several churches?

In the proposed Articles of Union the C. P. Church are asked to give up *nothing whatsoever*. We have to give up, in order that the union may be consummated, our time-honoured and close connection with the Church of Scotland, together with the many advantages, direct and indirect, which that connection implies. This will cost, at least to many, a very great sacrifice of feeling. It involves not merely the severance of ties of sentiment, but also the sundering of associations which have gathered around them the heart's tenderest fibres. Yet this sacrifice, great as it is, we are prepared to make in the interests of Presbyterianism, of the future of our adopted country, and especially the advancement of Christ's honour and kingdom. But ought we to be called upon to give up more?

In the controversy on "denominational grants" the C. P. Church, not only as individuals, but as a Church, were our most formidable opponents. They won the battle. They secured the triumph. And I think we may safely say that we cherish no hard feelings towards them in consequence of this, as we believe that they were prompted to their action in this matter by conscientious motives, by the dictates of what they conceived to be a principle. During the controversy we were taunted with meanness in taxing the public funds to support what we deemed a principle and told to endow it out of private resources. This we have just done. Upwards of \$100,000 have already been subscribed, and the movement is yet far from being completed. Over \$80,000 of this amount have already been paid into the Treasurer's hands. Of the whole amount subscribed at least \$90,000 (the balance, with the exception of about \$1,000, being contributed by citizens of Kingston belonging to other denominations) have been given by the members and adherents of our own Church, thus furnishing practical proof both of their own beneficence and of the strong hold which Queen's College has on their affections.

And now when we are flushed with victory—when we rejoice in the thought that our School of the Prophets, though beaten and driven out of the Provincial Legislature, has found a warm home in the hearts of our people, and of kind friends in other denominations, who have learned to appreciate her worth—when we are in the act of contemplating with gratitude and just pride this crowning monument of the Church's spirit and liberality; are we to be told that we must overthrow that monument and level it with the ground, before the other branch of the Presbyterian Church consents to form with us a union? What! must we not only part with our name, but also destroy our grandest trophy? Is this not asking too much? Has this not the appearance of a desire to humiliate; and can an honourable, harmonious or durable union result from the previous humiliation of one of the parties to it. Were the branch in connection with the Church of Scotland to consent to do what some have asked them to do in this matter, and I a member of the C. P. Church, I would refuse to cast in my lot with persons so craven and mean-spirited. For if, as a separate body, they would prove so recreant to what they hold to be a principle, they would prove equally recreant to other principles in the United body.

Why is all this sacrifice demanded from us? Simply to gratify a theory of some, which the C. P. Church have never erected into a principle—yea, which in its leading feature they deny in practice, as witness the case of Professor Young's chair, already referred to. Moreover, we have always been of opinion that when two parties are negotiating a union, there should be "give and take" on both sides—mutual compromise. When one party proposes then to erect, for the first time, a new principle, this cannot be regarded as indicative of a desire for union. What is practical, not mere theory, should be aimed at. This it is which mainly distinguishes Anglo-Saxon sagacity, and especially hard-headed Presbyterian shrewdness from French dreaming and sentimentalism.

It was said of a certain interpreter of the Parables that he saw Christ everywhere in them, even in the most remote allusions—of another, that he saw Christ nowhere. In like manner the Roman Catholic Church insisted on a union of the Church with everything under the sun; now there is a revulsion from this doctrine to the opposite extreme, that would divorce the Church from connection with every instrument of civilization, save the simple ministry of the word and ordinances. The true safety and welfare of men, we believe, lies in this as in most things, in the golden mean. The great battle which the several Churches have to wage in these days is a defensive warfare against a spurious liberalism—a real latitudinarianism. By all means let us accept with open hand what is broad, catholic, comprehensive; but, at the same time, we are required to guard against the secularizing tendencies of the age, which, under the cover of warring against

Puritanical narrowness and bigotry, would undermine Puritanical doctrine, masculine devotion, and the good, old-fashioned piety. We are a young Dominion. Too much care and vigilance cannot be exercised in regard to the character of our Institutions. While we guard jealously against the mistakes of European countries, which unite Church and State in closest relations, let us look across the border and gather lessons from their experience, where such relationship is opposed in principle and practice. There we find a growing disposition on the part of the Churches to have Arts' classes in connection with their Theological Halls. At Princeton there is not only a Theological Seminary, but also an Arts' College, called the College of New Jersey. In the proceedings of the last General Assembly of the Presbyterian Church of the United States (May 23rd, 1870), we find a letter addressed by the Faculty of this Institution to the General Assembly asking them to lay the corner-stone of a new building to be called "Re-union Hall," in honour of the re-union of the two branches of the Presbyterian Church, and from a speech delivered on the occasion by Dr. McCosh, President of the College, we quote: "Mr. Moderator, permit me in a single sentence to express my thanks to this Assembly for the action it has just taken. I wish to make this College closely associated with the Presbyterian Church, and the means of promoting the great interests of religion."

Queen's College does not knock at the door of the proposed United Church with a view to cast herself as a burthen upon its financial energies. The Institution is now comparatively well endowed. And we affirm, without meaning any offence to other Canadian Colleges, that facts demonstratively show that no College is more deeply implanted in the affections of a people. It is the offspring of the masses. University College is the creation of the Legislature. Not one cent has been given directly by the people towards its endowment. McGill is the erection of a few wealthy and liberal merchants of Montreal. Morrin is the work of one man. Whereas Queen's has been established and endowed by the personal liberality of the multitude. Three appeals for Endowment have been nobly answered. The first in 1840 contributed by those who afterward formed the Free Church as well as by ourselves. The second in 1855 when the buildings it now occupies were purchased. And the third, not yet completed. Thus it has its foundations broad and deep in the heart of our Church at large, and this is the Institution which we are asked to cast adrift!

Our motto then is "the University of Queen's College at Kingston"—the Institution *as it is* and *where it is*. We do not ask our friends of the other Church to make any change in the relation of their Seminaries to the United Church. Ours is the oldest Arts' College with University powers in operation in the Dominion—we have fostered it and it has been a source of strength to us: and we do not mean to sacrifice it even for the attainment of an end so vastly desirable as Union.

Let the resolutions of the Conference, unanimously agreed to by the chosen representatives of the other body equally as by ours, be adopted; and we vote heartily for the Union—we raise both hands for its consummation. We will be prepared as a Church, I believe, to accept the result of the deliberations of the assembled wisdom of the Churches convened at Montreal in September last.

But if otherwise—if a majority or formidable minority of the Canada Presbyterian Church insist on Queen's University and College and us parting company before they consent to form along with us a grand "Presbyterian Church of British North America," then we must with a sigh bid farewell to the hopes we had cherished, and throw on them the responsibility of "forbidding the banns."

